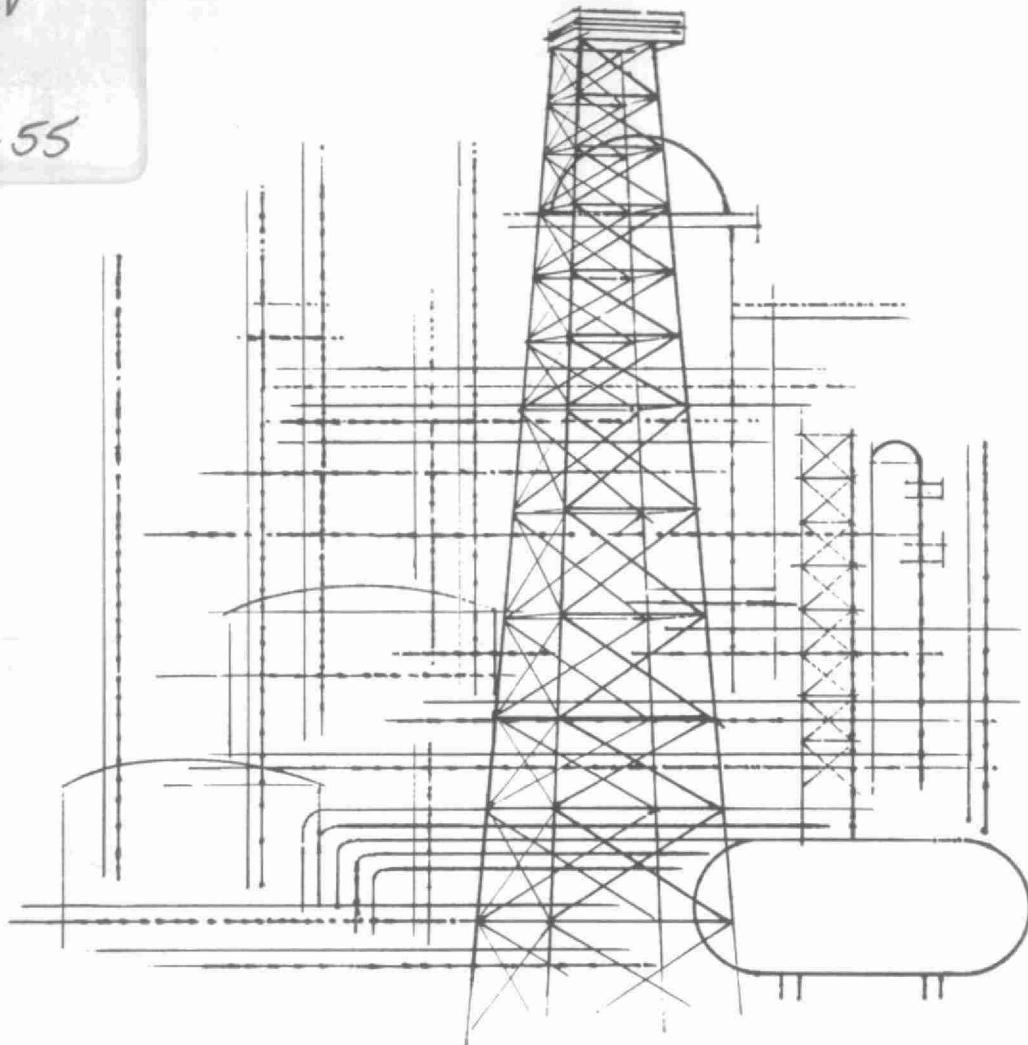


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annual report  
of the

**Department of Energy Resources**  
**1963**

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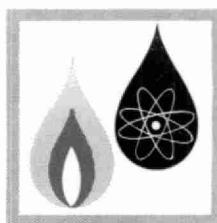
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annual report  
of the  
**Department of Energy Resources**

for the calendar year

**1963**



HON. J. R. SIMONETT, Minister

T. R. HILLIARD, Deputy Minister



THE HONOURABLE J. R. SIMONETT  
Minister of Energy Resources

## Introduction

The Department of Energy Resources as presently constituted came into existence on September 1, 1960, with the proclamation of The Energy Act. Therefore, this Annual Report, though being the fourth published by the Department, actually covers the third calendar year of operation which ended on December 31, 1963.

Much has been accomplished in the interval to provide more effective regulation of the drilling for and the production of oil and gas, the transmission and storage of gas, and the distribution and utilization of gas, propane and fuel oil. The Acts, the Regulations and the Codes have been improved and expanded in keeping with the greatly increased usage of hydrocarbon fuels.

This report is mainly statistical, with some explanatory and descriptive material, and includes the logs of all wells drilled during the year. In general format it is similar to the Annual Reports of the Ontario Fuel Board for the years 1954 to 1959 inclusive, and to that Part of the Annual Report of the Ontario Department of Mines prepared by the Natural Gas Commissioner in the years prior to 1954.

One copy of this Report, while current, is supplied free of charge to all 1963 licensees and permittees, and to libraries, educational institutions and other interested parties on our permanent mailing list. Additional copies are available at 50¢ each. Copies of Reports for previous years may be obtained for \$1.00 each.

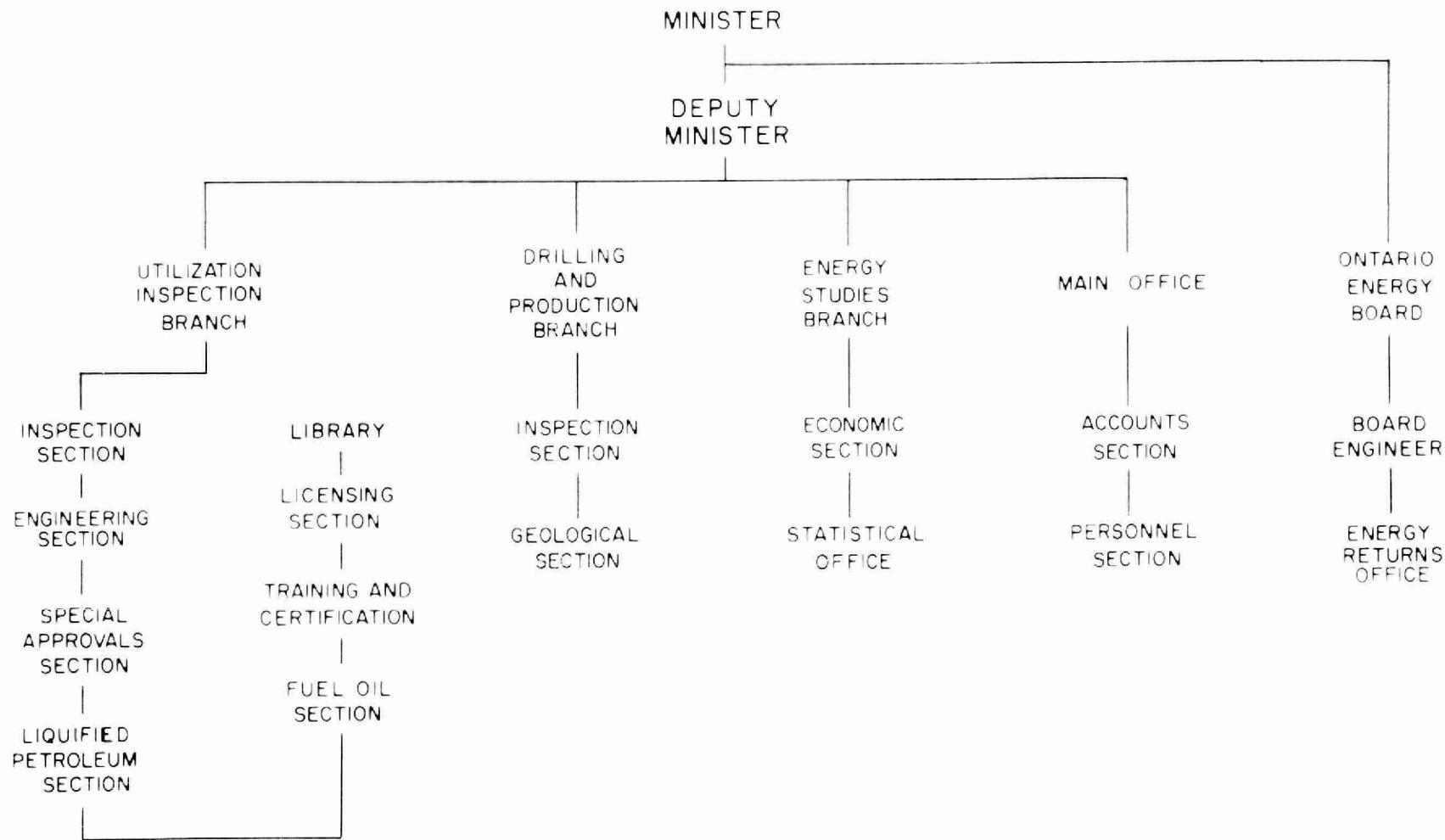
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# DEPARTMENT OF ENERGY RESOURCES



This Branch is headed by a Director and is divided into five sections:

1. **An Inspection Section** which is concerned with pipeline construction, the operation of utilities, and the inspection and installation of appliances,
2. **An Appliance Approvals Section,**
3. **A Liquefied Petroleum Section,**
4. **A Training and Certification Section,**
5. **A Fuel Oil Section.**

Each Section has responsibilities as follows:

#### **1. Inspection Section**

- (a) Inspecting and checking all gas utilities to ensure that utilities are adequately inspecting their own installations and that those made by registered contractors comply with standards set up under the Act and the Regulations thereunder;
- (b) To inspect and ensure that the provisions of The Energy Act and Regulations thereunder are complied with to ensure safe and adequate standards of construction, design, maintenance and operation of pipe lines;
- (c) Making spot inspections of gas and oil appliances, including piping and venting thereof, installed by gas utilities and registered contractors;
- (d) Co-operating with and assisting municipal and provincial government departments in the interpretation and enforcement of the installation codes and regulations in order to effect the maximum public safety;
- (e) Inspecting and reporting on accidents involving the use of fuels which come within the scope of The Energy Act and Regulations.

With respect to **appliance approval**, Ontario Regulation 24/62 was enacted on January 26, 1962. This regulation details the Ontario Government policy regarding the approval of fuel burning appliances for use within the Province.

The requirements of this particular regulation are summarized as follows:

1. The Canadian Gas Association is designated as an agency to test all gas appliances.
2. The Canadian Standards Association and the Underwriters' Laboratories of Canada are designated as agencies to test gas appliances having an input greater than 400,000 BTU per hour.
3. The C.G.A., the C.S.A., and the Underwriters' Laboratories of Canada

are designated as agencies to test appliances designed to burn both gas and fuel oil, either together or separately.

4. The C.S.A. and Underwriters' Laboratories of Canada are designated as agencies to test fuel oil appliances.

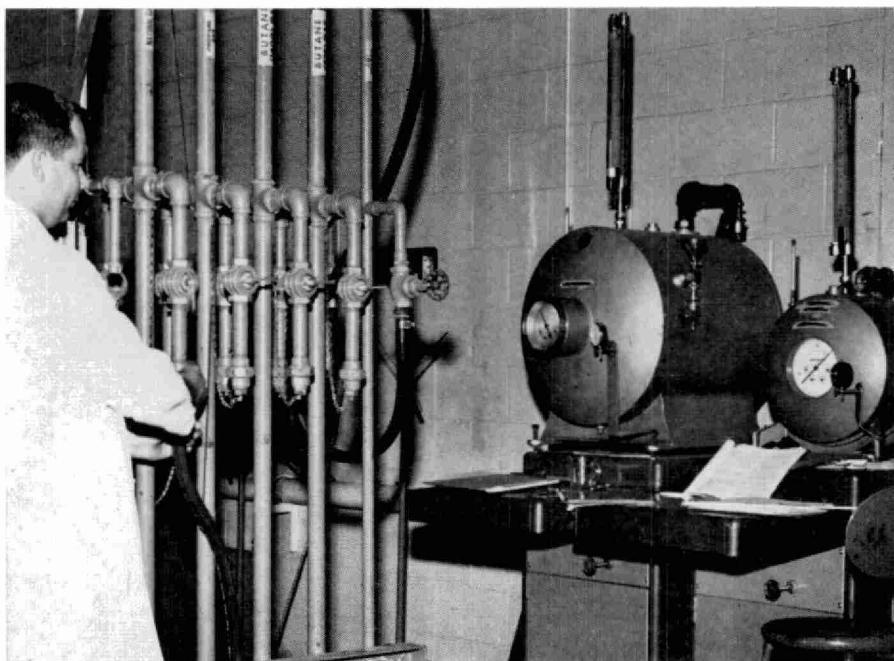
The agencies will test appliances in accordance with the requirements of specifications approved by the Minister, the titles of which have been published by the Department.

## 2. Appliance Approvals Section

Where no specification is available, the Department will examine, test and provide the label, if necessary, through the Appliance Approvals Section. The Department is required to inspect and, where applicable, to label gas appliances which have not been tested and certified by a designated testing organization.

These appliances fall into two groups:

- (1) Those for which specifications are not found in the Titles of Specifications approved by the Minister.
- (2) Those for which the cost of a laboratory test would be prohibitive.



C.G.A. Testing Laboratory

The following program is carried out by the Section:

- i Inspection of appliances not certified by the Section.
- ii Supervision of the field testing of appliances of larger sizes, larger fuel inputs and those of a special nature.
- iii Compilation of data from laboratory test requirements, safety codes, and recognized good industry practice for the use of our staff in the field.
- iv Participation with industry in committee meetings to prepare test procedures, minimum safety requirements and recommended good practice manuals for the use of industry.
- v Study of drawings and diagrams of proposed appliance design and construction with a view to labelling.
- vi Spot inspections of certified appliances in the field to ensure compliance with requirements of specifications approved by the Minister.
- vii Co-operation with and assistance to other Government Departments and testing agencies in the interpretation of specifications.

### **3. Liquefied Petroleum Section**

The Department is required to licence all persons who distribute and transfer liquefied petroleum gases.

During 1963 the Department issued 436 licences to distribute L.P.G. and 135 licences to transfer L.P.G.

With certain amendments, Part 3 of Canadian Standards Association B149-1962 Installation Code for Gas Burning Appliances and Equipment has been part of the regulation covering storage, handling and use of L.P.G. in Ontario.

### **4. Training and Certification Section**

The Department is required to examine applicants as Gas Fitters, Maintenance Gas Fitters and Pipeline Inspectors.

Successful applicants are provided with Certificates indicating their qualifications.

In order to assist these prospective applicants, a program has been set up to provide instruction relating to the various codes and regulations which must be followed in carrying out these functions. This training has been made available in Toronto and throughout the province.

In addition, a night course of 22 weeks' duration including examinations for Gas Fitters has been set up in co-operation with the Provincial Institute of Trades.

During the year, the Branch issued licences to 518 Gas Fitters, 41 Maintenance Gas Fitters, 98 Pipeline Inspectors and 169 Liquefied Petroleum Gas Fitters. There were 2,850 Registration Certificates issued to contractors who install, service or remove fuel burning equipment.

## 5. Fuel Oil Section

The Department is required to register all persons who carry on the business of installing, removing or servicing fuel oil burning appliances.

The Canadian Standards Association B139-1957 Installation Code for Oil Burning Equipment is incorporated in the Regulations as the standard for oil-fired installations.

Three Licences to Distribute Fuel Oil were issued during the year pursuant to Section 5(1) (c) of the Energy Act.



Exhibit at Canadian National Exhibition 1963

## Part II

## Energy Studies Branch

This Branch is responsible for the preparation of the energy forecasts and all other economic information which is required by the Department. The departmental statistician works in conjunction with this Branch.

The Branch issues at regular intervals a statistical report showing the production of oil and natural gas in the Province as well as detailed monthly figures on the consumption, transmission, and storage of natural gas. Personnel attended a number of meetings of the Federal-Provincial Committee on Oil and Gas Statistics. A member of the Branch attended a number of Hearings of the National Energy Board in cases where the interests of the Province of Ontario were involved.

## Part III

## Drilling and Production Division

### FOREWORD

The Drilling and Production Division of the Energy Branch administers the portions of the Energy Act and the Regulations thereunder which deal with the drilling for and production of gas and oil, including functions such as leasing oil and gas rights, and geophysical and geochemical prospecting.

Probably the most interesting aspect of the 1963 activities administered by the Drilling and Production Division were the 19 successful exploratory tests. Fifteen found Silurian gas, 2 found Silurian oil and 2 found Cambrian oil. Eleven of the 15 gas discoveries were in eastern Lake Erie. At the time of writing, insufficient development drilling has been done to evaluate any of the 19 discoveries.

Important developments in 1963 were an increase of 11 percent in gas production from Lake Erie of which Haldimand county offshore output more than offset declines in other lake wells, and an increase of less than two percent over 1962 from all gas pools due to decreases mainly in some Lambton and Kent county wells. Crude oil production increased 6 percent mainly from the new Clearville field, discovered in Kent county during 1962.

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### SECTION 1 — NATURAL GAS

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#### General

A statistical outline of the natural gas industry in Ontario during 1963 is presented in the Gas Balance Sheet at Table I hereunder.

TABLE I—GAS BALANCE SHEET, 1963

	Thousands Cubic Feet *	100.0
<b>SUPPLY</b>		
Ontario Production.....	15,920,055	8.7
Imports from:		
Western Provinces.....	161,063,348	87.7
United States.....	6,693,136	3.6
Propane — air.....	3,978	
Total Supply.....	<u>183,680,517</u>	<u>100.0</u>
 <b>DISPOSITION</b>		
Sales		
Residential.....	62,027,902	
Commercial.....	22,439,257	
Industrial.....	83,221,305	
Total Sales to Consumers.....	<u>167,688,464</u>	91.3
Free Gas.....	60,080	
Company Use.....	7,369,309	4.1
Total Consumption....	<u>175,117,853</u>	
Gas to Storage (net).....	1,823,119	1.0
Gas to Hull, Que.....	1,321,505	0.7
Exports to U.S.A.....	1,686,767	0.9
Unaccounted for.....	3,731,273	2.0
Total Disposition.....	<u>183,680,517</u>	<u>100.0</u>

\* at 14.73 psia.

Total natural gas receipts advanced 19 percent over 1962 mainly due to continued annual increases in Western gas inflow. Production from wells in Ontario increased nearly 2 percent over 1962 accounting for approximately 9 percent of total consumption. The portion of total demand for gas met by Ontario production continued its relative decline since 1954, which trend probably will accompany increasing gas sales in the province. While Western gas was the major source of supply, imports from the U.S.A. advanced more than 20 percent mainly to help meet the sales increase of 16 percent during the peak months of the first quarter.

Total net consumption increased by more than 16 percent over 1962. Percent increases in sales by categories of customers were residential 12, commercial 19, and industrial 11.

Other significant points at Table I were increases in gas placed in storage, in exports to the United States at Cornwall and, in company, mainly in compressor stations currently being augmented to handle the increasing transmission of Western gas.

TABLE II—ONTARIO NATURAL GAS PRODUCTION BY FIELD, 1953

Field	Production	Formation	Value		
			Barrels	Acres	Barrels
Orford	1,000	Salina-Guelph	3	400	1,000
Orford	1,000	Clinton	10	20	1,000
Orford	1,000	Salina	3	8	1,000
Orford	1,000	Salina	—	1	1,000
Orford	1,000	Clinton	4	—	1,000
Orford	1,000	Clinton	15	2	1,000
Orford	1,000	Guelph	—	2	1,000
Orford	1,000	Clinton	5	1	1,000
Orford	1,000	Clinton	5	—	1,000
Orford	1,000	Clinton	19	70	1,000
Orford	1,000	Irondequoit	—	—	1,000
Orford	1,000	Thorold	—	—	1,000
Orford	1,000	Clinton	38	781	1,000
Orford	1,000	Whampool	—	—	1,000
Orford	1,000	Guelph	—	15	1,000
Orford	1,000	Guelph	—	21	1,000
Orford	1,000	Guelph	—	3	1,000
Orford	1,000	Guelph	—	2	1,000
Orford	1,000	Gull River	—	15	1,000
Orford	1,000	Gull River	2	1	1,000
Orford	1,000	Guelph	—	2	1,000
Orford	1,000	Clinton	3	—	1,000
Orford	1,000	Clinton	3	15	1,000
Orford	1,000	Guelph	—	25	1,000
Orford	1,000	Clinton	2	—	1,000
Orford	1,000	Guelph	7	10	1,000
Orford	1,000	Guelph	2	17	1,000
Orford	1,000	Tremont	6	5	1,000
Orford	1,000	Clinton	3	4	1,000
Orford	1,000	Clinton	1	4	1,000
Orford	1,000	Clinton	—	4	1,000
Orford	1,000	Clinton	—	4	1,000
Orford	1,000	Salina-Guelph	1	11	1,000
Orford	1,000	Clinton	16	73	1,000
Orford	1,000	Clinton	—	100	1,000
Orford	1,000	Clinton	—	1	1,000
Orford	1,000	Clinton	1	47	1,000

Becher, East.....	Sombra.....	1	1	183	39,277	
Becher, West.....		3	9	261	345,900	
Bickford.....		10	3	429	2,039,919	
Colinville-						
Kimball.....	Moore.....	16	4	217	1,348,056	
Corunna.....		2	11**	447	204,050	
Dawn Misc.....	Dawn.....	14	4	—	96,247	
Lambton....Dawn 156.....		6	9	582	3,188,461	
Dawn 167.....	Dawn-					
Enniskillen.....		5	—	848	—	
26 & 28.....	Enniskillen.....	3	—	796	—	
Mandaumin.....	Plympton.....	—	1	195	221,755	
Seckerton.....	Moore.....	2	11**	417	934,093	
Sombra.....	Sombra.....	2	1	465	119,140	
Middlesex..Wardsville.....	Mosa.....	Salina-Guelph	—	20	310	114,041
Norfolk....Norfolk.....	{ Lake Erie.....	Irondequoit.	25	10	323	148,959
	All townships..	Grimsby....	40	554	239	1,313,838
Oxford.....Gobles.....	Blenheim.....	Eau Claire...	1	9	202	82,207
Norwich South.	South Norwich...	Irondequoit..	—	6	275	16,352
Welland....Welland.....	Lake Erie.....	Irondequoit..	3	1	180	5,558
	All townships..	Grimsby and Whirlpool...	144	479	80	140,593
GRAND TOTALS.....			442	2,449	—	15,920,055

\*At 14.73 psia.

\*\*Solution gas from oil wells.

## Wells and Production

The sources of gas produced from Ontario wells is shown in maximum possible detail at Table II, including field or pool name, location, producing formation, number of wells and measured or estimated field pressures. While all known pools of commercial value are shown, the shut-in wells listed include some having important productive potential. Comparison of Table II with that for 1962 reflects certain changes some of which are important.

In Elgin county, the pools in Aldborough and Dunwich townships produced substantially greater quantities over 1962, resulting from their reactivation during that year. The older Bayham township pools produced 30 percent less gas than in 1962 accompanying a decrease in active producing wells. In Essex

county, apart from a minor increase from the Kingsville field land wells, the normal decline in production from these nearly depleted wells continued, particularly in the Staples field.

Production from the Haldimand field was an outstanding increase of more than 60 percent over 1962 thereby maintaining its historic position as a major source of natural gas in the province. The bulk of this increase was from offshore wells connected to the on-shore system during 1962. In addition, 11 out of 15 test wells drilled in Lake Erie near Selkirk, Haldimand county, and Port Burwell, Norfolk county, were successful and, subject to further drilling to determine commercial significance, should contribute to future offshore production. Production from Haldimand land wells was only a minor decrease over 1962 despite the closing in of many wells for non-productiveness.

Halton and Huron counties showed slight increases particularly in the former, where the Hornby field was brought into production during the year.

Lambton and Kent counties contributed over 70 percent of total 1963 production, being a decline from over 75 percent for 1962. Dawn 156 maintained its position as the largest single source with an increase exceeding 4 percent over 1962. D'Clute and Tilbury offshore wells also continued as strong producers with an increase of 11 percent in the former and a minor increase in the latter field over 1962. Offshore Morpeth wells also had an 11 percent production increase. While Tilbury land wells more than doubled their 1962 production, there were decreases in all other fields in Kent county. Except for increases of 35 percent in the Colinville-Kimball field and of 22 percent in the smaller Dawn fields, other Lambton fields also had production decreases. A gas discovery during the year was a possible reef in Sombra township, Lambton county, which requires further drilling to determine commercial potential.

The Wardsville pool in Middlesex counties continued its trend of decreasing production.

Norfolk county was an area of substantial exploration and development activity during 1963. While offshore wells produced less gas than in 1962, the number of wells increased considerably and, with further development, should result in correspondingly greater production. On land, production advanced with more active wells while some non-producers were closed off. Three new pools were found on land which require further drilling to assess commercial value. Continuation of drilling activities in the Norfolk field should further prove its potential as a major gas producing area.

Oxford county wells produced considerably less than in 1962 particularly in the Gobles field. In the Welland fields, there were decreases in both offshore and land production.

TABLE III—LAKE ERIE GAS WELLS AND PRODUCTION, 1963

County	Field or Pool	Wells		Average W.H.P. p.s.i.g.	Production Mcf.*
		Shut-in	Active		
Essex	Kingsville, etc.....	4	—	359	—
Kent	D'Clute.....	7	10	465	605,400
	Morpeth.....	—	4	376	59,870
	Tilbury East.....	16	73	275	1,460,055
Haldimand	Haldimand.....	19	70	300	1,253,455
Norfolk	Norfolk.....	25	10	320	148,959
Welland	Welland.....	3	1	180	5,558
TOTALS.....		74	168		3,533,297

\*at 14.73 p.s.i.g.

### Lake Erie

Production activities in Lake Erie appears at Table III which consolidates similar details appearing in Table II.

The number of active wells declined slightly but total wells off Haldimand and Norfolk counties advanced considerably from the increased exploratory and drilling activities during the year. Production increases of over 60 percent in the Haldimand field, 11 percent in Morpeth and 10 percent in D'Clute more than offset decreases in other offshore fields. While Norfolk production was a decline of 13 percent over 1962, the advance of 50 percent in total wells in that field should, subject to further testing, augment offshore production as well as the proven reserves under the Lake.

### Gas Storage

The Province's incomparable gas-storage fields continued in 1963 to play a most significant role in the mechanics of gas distribution to our 623,000 consumers.

During the year, the Zone field was designated as a gas-storage area, and gas-storage was authorized by Board Order in the Corunna, Seckerton and Kimball-

Colinville pools. Thus at year's end there were 9 designated and authorized gas-storage pools, 5 of them in use, and 3 more designated but not yet authorized. The pools in use are operated by the Union Gas Co. of Canada and its storage subsidiary, while the 3 newly-authorized pools in Moore township are to be operated by Tecumseh Gas Storage Limited, a jointly owned subsidiary of Imperial Oil Limited and Consumers' Gas Co., with injection planned for June, 1964.

The end of the injection season saw a total 65.1 billion cubic feet of gas in the 6 pools, including cushion gas, in preparation for the 1963-1964 heating season. That season being below average in severity, the net withdrawal to the end of April, 1964, was only 24.4 billion cubic feet.

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## **SECTION 2—OIL PRODUCTION**

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Crude oil produced from Ontario wells was 6 percent greater than during 1962. The new Clearville field more than doubled its production over that in 1962 when first discovered. Gobles production increased 5 percent and, combined with Clearville, these two Cambrian fields produced about one-third of the 1963 total. Rodney field maintained its position as the major producer despite a 7 percent decrease over 1962 and contributed nearly 20 percent of the total.

Significant variations in the volumes of oil produced by the other major fields were as follows: Colchester declined by 35 percent, Malden 23 percent, Becher 15 percent, Wanstead 11 percent and Grand Bend 43 percent. These declines were partially offset by increases of 36 percent in Dawn, 21 percent in Oil Springs and 6 percent in Petrolia.

There were actually five oil discoveries during the year. Two were of Cambrian age, one near Duart in Kent County and the other near Verschoyle in Oxford County. The Duart well has since been abandoned because of mechanical difficulties, and no further drilling has been done at Verschoyle. Two other discoveries, both of Silurian age, were in Lambton County, one near Brigden and the other in the Sutorville area. In both cases, a commercial potential has been established and development is proceeding. The fifth "discovery" was of Ordovician oil in a development well in the Clearville pool. Since production rapidly declined, the pay was cemented and the well completed in the Cambrian. For the above reasons, the well in question was not accorded "successful exploratory test" status in our Tabulation of Drilling in Section 3.

Imperial Oil Co. continues as the only purchaser of Ontario's crude oil production. Prices per barrel f.o.b. Imperial's Sarnia refinery in January 1963

were \$3.41 for Essex Ordovician crude, \$3.32 for Gobles and \$3.24 for all other. A decrease of four cents per barrel for all crude occurred in February, with a further reduction of 3 cents in Rodney crude. Based on these prices, the total delivered value of Ontario crude production was about \$3,840,000 for an average of \$3.18 per barrel. With an estimated deduction for transportation of 37¢ per barrel, the total value at wellhead would be approximately \$3,394,000.

There were 64 oil producers in 1963; along with the gas producers, they are listed in Table IV. Table V lists 1963 production and Table VI, a five-year period.

The following tabulation indicates the trend to a greater proportion of production from the deeper horizons.

	1959	1960	1961	1962	1963
Devonian.....	38.1	36.3	41.5	33.9	31.3
Silurian.....	56.5	44.8	43.3	36.5	31.5
Ordovician.....	5.4	18.6	9.6	8.2	5.2
Cambrian.....	—	.3	5.6	21.4	32.0
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

TABLE IV — LICENSED PRODUCERS, 1963

NAME	ADDRESS
A.C. Gas Syndicate.....	Ridgeway, Ont.
Addison, W.....	Jarvis, Ont.
Albino Gas Ltd.....	Toronto, Ont.
Allegany Producing Corporation.....	Wellsville, N.Y.
Anchor Petroleum Ltd.....	Toronto, Ont.
Annett, R.....	Bothwell, Ont.
Anthony Gas and Oil Explorations Ltd.....	Acton, Ont.
Arno Mines Ltd.....	Toronto, Ont.
Atkinson, J.....	Petrolia, Ont.
Barnett, A. D.....	Wichita, Kansas
Beacon Gas Syndicate.....	Fort Erie, Ont.
Ben Brae Co. Ltd.....	Hamilton, Ont.
Bengal Development Corp. Ltd.....	Toronto, Ont.
Benner, K. W.....	Fisherville, Ont.
Bertie Oil and Gas Ltd.....	Toronto, Ont.
Big Seven Gas Syndicate.....	Fisherville, Ont.
Bluewater Oil and Gas Ltd.....	Calgary, Alta.
Bolivar Gas Co.....	Bolivar, N.Y.
Bova Gas and Development Co.....	Buffalo 2, N.Y.
BP Exploration Canada Ltd.....	London, Ont.
Bradley, M.....	Petrolia, Ont.
Booth, A.....	Niagara Falls, Ont.

TABLE IV — LICENSED PRODUCERS, 1963 — *Continued.*

NAME	ADDRESS
Brennan, R. J.....	Bradford, Pa.
British American Oil Co.....	Toronto, Ont.
Buck, C. S. Estate.....	London, Ont.
Byers, Bros.....	Oil Springs, Ont.
Byers, I.....	Petrolia, Ont.
Camerina Petroleum Corp.....	Toronto, Ont.
Canadian Kewanee Ltd.....	Calgary, Alta.
Canada Cities Service Petroleum Ltd.....	Calgary, Alta.
Cango Development Ltd.....	Buffalo 16, N.Y.
Can-York Prospecting Syndicate.....	Fort Erie, Ont.
Caughell Bros.....	Dunnville, Ont.
Central Pipe Line Co. Ltd.....	Aylmer, Ont.
Colborne Gas Syndicate.....	Stevensville, Ont.
Cole, L.....	Petrolia, Ont.
Colonial Petroleum Ltd.....	Chatham, Ont.
Comfort, N. E.....	Chatham, Ont.
Consolidated West Petroleum Ltd.....	Toronto, Ont.
Consumers Gas Co.....	Toronto, Ont.
Copeland, Mrs. R.....	Petrolia, Ont.
Coronation Gas Syndicate.....	Stevensville, Ont.
Cornerstone Investment Corp. Ltd.....	Toronto, Ont.
D. and M. Syndicate.....	Fort Erie, Ont.
Daubaris, F.....	Dunnville, Ont.
Dawson, R.....	Merlin, Ont.
Deanna Lee Gas Syndicate.....	Finch, Ont.
DeMers, V.....	Petrolia, Ont.
Dickout, Bros.....	Lowbanks, Ont.
Donald, D. Estate.....	Croton, Ont.
Donald, F. & O.....	Oil Springs, Ont.
Donald, R.....	Petrolia, Ont.
Donolga Co.....	Simcoe, Ont.
Edwards, F. H.....	Petrolia, Ont.
Elgin Petroleum Corporation Ltd.....	Rodney, Ont.
El Paso Gas Products Co.....	Dunnville, Ont.
Emerson, H. L.....	Dunnville, Ont.
Essex Gas & Oil Ltd.....	Toronto, Ont.
Fairbank, J. H. Estate.....	Petrolia, Ont.
Felmont Oil Corporation.....	Owensboro, Ky.
Fedrich & Moser.....	Tillsonburg, Ont.
Fisherville Gas Syndicate.....	Fisherville, Ont.
Flasher Oil & Gas Syndicate.....	St. Thomas, Ont.
Fletcher, Mrs. E.....	Glanford Sta., Ont.
Flood-Oils Ltd.....	Sarnia, Ont.
Foreign Exploration Corp. Ltd.....	Toronto, Ont.
Fox, E. S.....	Thorold, Ont.
G. A. E. Developments.....	St. Thomas, Ont.

TABLE IV — LICENSED PRODUCERS, 1963 — *Continued.*

NAME	ADDRESS
George, A.....	Fort Erie, Ont.
Godby, W. M.....	Langton, Ont.
Glenard Ltd.....	Dunnville, Ont.
Grand River Gas Ltd.....	Canfield, Ont.
Greenacres Gas Syndicate.....	Fort Erie, Ont.
Gurnell, N.....	Stevensville, Ont.
Haldimand Gas and Oil Ltd.....	Cayuga, Ont.
Haldimand Natural Gas Syndicate.....	Stevensville, Ont.
Heise and Marton Gas Syndicate.....	Welland, Ont.
Hercules Oil & Gas Syndicate.....	Ridgeway, Ont.
Highbank Oil Ltd.....	Chatham, Ont.
Holmes, E. B.....	Bothwell, Ont.
House, C. C. Estate.....	Niagara Falls, Ont.
Huron Petroleum Co.....	Chatham, Ont.
Imperial Oil Ltd.....	London, Ont.
J. V. J. Syndicate.....	Snyder 26, N.Y.
Jackson, P. L.....	Dunnville, Ont.
Jarvis Hereford Farms.....	Jarvis, Ont.
Karr, E.....	Bothwell, Ont.
Kells, E. E.....	Petrolia, Ont.
Keradec Petroleum Ltd.....	Toronto, Ont.
Kerr, J. & J. Co. Ltd.....	Petrolia, Ont.
Kingsville Gas Co. Ltd.....	Toronto, Ont.
Kinsey, O. W.....	Dunnville, Ont.
Koyden, E. A.....	Sarnia, Ont.
Lapp, W.....	Niagara Falls, Ont.
Layton Gas & Oil Co.....	Olean, N.Y.
LeJeune, L.....	Ridgeway, Ont.
Lewis, C. B.....	Lum, Mich.
Lewis, W. G.....	Oil Springs, Ont.
Lincoln Natural Gas Ltd.....	Dunnville, Ont.
Linda Lee Syndicate.....	Ridgeway, Ont.
Long Point Gas & Oil Co. Ltd.....	Simecoe, Ont.
Lowbanks Gas Co. Ltd.....	Dunnville, Ont.
M.M.T. Syndicate.....	Snyder 26, N.Y.
MacAnn Wall Syndicate.....	Buffalo, N.Y.
McGaffey, E.....	Bothwell, Ont.
McIntyre & Hawkins.....	Fort Erie, Ont.
McMaster, R. & Sons Co. Ltd.....	Caledonia, Ont.
McPherson, R. L.....	Riverside, Ont.
Maguire, J. T.....	Clifford, Ont.
Marcus, L.....	Wallacetown, Ont.
Meyers, P.....	Fort Erie, Ont.
Mile 18 Mines Ltd.....	Toronto, Ont.
Mitchell, C.....	Oil Springs, Ont.
Mitchell, G.....	Oil Springs, Ont.

TABLE IV — LICENSED PRODUCERS, 1963 — *Continued.*

NAME	ADDRESS
Monarch Gas and Oil Syndicate.....	Fisherville, Ont.
Monte Gas Syndicate.....	Fort Erie, Ont.
Morningstar, G.....	Oil Springs, Ont.
Morningstar, L.....	Oil Springs, Ont.
Morrison, D.....	Langton, Ont.
Murdoch, W.....	Dunnville, Ont.
Mulgrave Gas Syndicate.....	Ridgeway, Ont.
Nagel, E.....	Stevensville, Ont.
Nauman, J. R.....	Fisherville, Ont.
Neff, R. L.....	Sherkston, Ont.
Nemec, J.....	Chatham, Ont.
Newport Gas Syndicate.....	Fort Erie, Ont.
Niagara Gas Syndicate.....	Fisherville, Ont.
Niecc Bros.....	Lowbanks, Ont.
Niece, E.....	Dunnville, Ont.
Nigh, C.....	Stevensville, Ont.
N.Y.K. Oil (Canada) Ltd.....	Oil Springs, Ont.
Norgas Development Co.....	Simcoe, Ont.
Noyes, L. A. Estate.....	Stevensville, Ont.
Nycan Gas Co.....	N. Tonawanda, N.Y.
Oko Oil & Gas Co.....	Dallas, Texas
Ontario Natural Gas Storage & Pipelines Ltd.....	Chatham, Ont.
Ort, C. H.....	Chippawa, Ont.
Paleso & Marr.....	Wainfleet, Ont.
Paris Petroleums Ltd.....	Princeton, Ont.
Patrick Petroleum Co.....	Jackson, Mich.
Peacock Point Gas and Oil Syndicate.....	Fisherville, Ont.
Pegg Enterprises Ltd.....	Morpeth, Ont.
Petrol Oil and Gas Co. Ltd.....	Calgary, Alta.
Place Gas and Oil Co. Ltd.....	Toronto, Ont.
Pope, W.....	Bothwell, Ont.
Provincial Gas Co. Ltd.....	Fort Erie, Ont.
Putman, S. J.....	Kingsville, Ont.
Rae, R.....	Niagara Falls, Ont.
Raydis Oil and Gas Co. Ltd.....	Chatham, Ont.
Redisterf Gas Syndicate.....	Stevensville, Ont.
Reid, E.....	Petrolia, Ont.
Richmount Developments Ltd.....	Ridgeway, Ont.
Riddell-Hanna Explorations Ltd.....	Highland Pk.3, Mich.
Riverside Syndicate.....	Welland, Ont.
Roberts, C. H.....	Coudersport, Pa.
Robinson Road Gas Syndicate.....	Dunnville, Ont.
Roth and Roth Ltd.....	Petrolia, Ont.
Roth, F. W. Estate.....	Ridgeway, Ont.
Royal Gas Syndicate.....	Stevensville, Ont.
Ruch, K.....	Stevensville, Ont.

TABLE IV — LICENSED PRODUCERS, 1963 — *Continued.*

NAME	ADDRESS
R. V. R. Gas Syndicate.....	Ridgeway, Ont.
Ruegg Gas Co.....	Ridgeway, Ont.
Sagadahoc Oil & Gas Corp.....	San Francisco, Cal.
Salina Gas and Oil Co.....	Chatham, Ont.
Shain, V.....	Petrolia, Ont.
Shamblaw, W. M.....	Kerrwood, Ont.
Sherk, B. Estate.....	Stevensville, Ont.
Sherkston Gas Syndicate.....	Sherkston, Ont.
Sider, A. and J.....	Stevensville, Ont.
Sider, N.....	Fort Erie, Ont.
Simon, B.....	Chippawa, Ont.
Sodom, L. and A. Syndicate.....	Ridgeway, Ont.
Standard Gas and Oil Syndicate.....	Fisherville, Ont.
Starlite Gas Co. Ltd.....	Erie County, N.Y.
Steele, C. A. Estate.....	Port Colborne, Ont.
Stevensville Natural Gas and Fuel Co.....	Stevensville, Ont.
Stewart, E.....	Jarvis, Ont.
Sumac Oil & Gas Co.....	Wichita, Kansas
Sunnyside Gas Syndicate.....	Welland Jct., Ont.
T. H. & G. Syndicate.....	Ridgeway, Ont.
Thompson, A. L.....	Petrolia, Ont.
Tobacco Road Oil Co.....	Wellsville, N. Y.
Tri-County Gas and Oil Co. Ltd.....	Woodstock, Ont.
Triform Exploration (B.C.) Ltd.....	Toronto, Ont.
Trio Gas Company.....	Dunville, Ont.
Twin City Gas Syndicate.....	Fort Erie, Ont.
Union Gas Co. of Canada, Ltd.....	Chatham, Ont.
Valencourt Estate.....	Welland, Ont.
Valencourt, L.....	Welland, Ont.
Vanderburg, L.....	Simcoe, Ont.
Wale, H.....	Stevensville, Ont.
Warwick, J. L.....	Bothwell, Ont.
Welland County Gas Syndicate.....	Stevensville, Ont.
Welland Gas Syndicate.....	Dunville, Ont.
Welland Iron and Metal Co.....	Welland, Ont.
Wellandport Natural Gas Co. Ltd.....	Dunville, Ont.
Whorton and Associates.....	Wellsville, N. Y.
Willow Gas and Oil Co.....	Simcoe, Ont.
Woodstock Oil and Gas Co.....	Wichita, Kansas
Yochim, E.....	Stevensville, Ont.
York Producing Co. Ltd.....	Wallaceburg, Ont.
Yuez Gas Co.....	Buffalo, N.Y.
Zenmac Metal Mines Ltd.....	Toronto, Ont.

TABLE V—ONTARIO OIL FIELDS, WELLS AND PRODUCTION, 1953  
QUANTITIES IN BARRELS

TABLE VI—OIL PRODUCTION IN ONTARIO 1959 TO 1963  
(In Barrels)

County	Field	1959	1960	1961	1962	1963
<b>BRANT, OXFORD</b>	Gobles.....	—	2,757	64,897	143,321	150,866
<b>ELGIN</b>	Rodney.....	286,116	248,364	348,810	252,785	234,318
	Wallacetown.....	1,915	1,926	1,745	1,547	1,458
<b>ESSEX</b>	Colchester.....	51,899	185,541	105,655	66,324	42,983
	Malden.....	—	—	2,774	25,305	20,156
	Bothwell-Thamesville	10,561	9,262	9,933	9,583	8,939
<b>KENT</b>	Chatham.....	5,938	6,729	6,038	5,338	4,248
	Clearville.....	—	—	—	99,124	234,596
	Dover.....	1,193	1,199	854	50	50
	Dresden.....	2,786	4,005	4,103	2,267	2,414
	Becher.....	50,974	62,286	57,237	47,764	40,786
<b>LAMBTON</b>	Colinville.....	5,812	9,502	5,051	7,999	6,429
	Corunna.....	208,813	132,881	104,665	91,564	91,438
	Dawn.....	41,509	41,917	24,578	21,324	29,181
	Kimball.....	4,396	3,153	4,547	2,141	1,713
	Oil Springs.....	32,784	48,596	51,079	53,694	64,748
	Petrolia.....	25,740	25,153	26,605	27,238	28,837
	Seckerton.....	62,377	32,982	48,187	46,861	51,559
	Seckerton N.....	8,239	29,516	58,958	45,855	39,512
	Shetland (Dev.).....	802	1,656	3,254	2,497	1,852
	Talford.....	3,321	2,504	1,610	1,180	1,109
	Wanstead.....	82,661	38,524	42,142	38,718	34,462
	Warwick.....	40,835	46,904	71,937	62,743	51,547
<b>MIDDLESEX</b>	Glencoe.....	22,351	28,595	34,978	36,762	36,108
	Grand Bend.....	45,257	37,112	68,484	40,058	22,945
<b>Other</b>	Misc.....	5,301	3,966	966	2,492	3,122
	Totals.....	1,001,580	1,005,030	1,149,087	1,134,534	1,205,376

### SECTION 3 — EXPLORATION AND DRILLING

#### SUMMARY:

As in our Annual Report as a whole, this section deals primarily with statistics, accompanied by some explanatory text. The phases of activity covered are field work, leasing and drilling.

Highlights of the year were: the excellent percentage of successful exploratory wells, the increase in Cambrian drilling, and the successful exploratory drilling in eastern Lake Erie.

### **Geophysical and Geochemical Exploration**

Detailed field work of this type was more concentrated than in previous years, most of it being in the five counties of Kent, Elgin, Lambton, Middlesex and Huron. In addition to the detail work, there was a reconnaissance survey using electrical methods extending from Kent County, through Elgin, Oxford, Norfolk and Brant Counties to Haldimand County, and reconnaissance geochemical surveys in Lambton and Huron Counties.

The companies licensed to do geophysical and geochemical field work are shown in Table A.

Table B shows the methods used, the areas covered and the time in crew-months expended.

In addition to the above, there was some seismic and magnetic activity in the off-shore portion of the Hudson Bay Lowlands, about 2½ crew-months in all, but these waters at present are not considered as being part of Ontario.

TABLE A — LICENCE TO CONDUCT GEOPHYSICAL AND GEOCHEMICAL EXPLORATION 1963

NAME	ADDRESS
Bluewater Oil & Gas Ltd.....	Calgary, Alta.
BP Exploration Canada, Ltd.....	London, Ont.
British American Oil Co. Ltd.....	Toronto, Ont.
California Standard Co. Ltd.....	Ottawa, Ont.
Debnam, A. H.....	Toronto, Ont.
Electronic Geophysical Surveys Ltd.....	Vancouver, B.C.
El Paso Natural Gas Products.....	El Paso, Texas.
Home Oil Company Ltd.....	Calgary, Alta.
Imperial Oil Ltd.....	Chatham, Ont.
McClusky, J.....	Scarboro, Ont.
Ontario Natural Gas Storage & Pipelines Ltd.....	Chatham, Ont.
Place Gas & Oil Co. Ltd.....	Toronto, Ont.
Texaco Explorations Ltd.....	Calgary, Alta.
Union Gas Co. of Canada Ltd.....	Chatham, Ont.
Western Albertmont Petroleum Ltd.....	Calgary, Alta.

TABLE B — GEOCHEMICAL AND GEOPHYSICAL ACTIVITY

Method	Counties	Crew-months	Acreage covered
Geochemical	Lambton Middlesex Huron	22	563,000 + reconnaissance
Gravity	Lambton Kent	11	298,000
Magnetic	Huron Lambton Kent Elgin	7	5,000
Electrical	Various	3½	reconnaissance only
Seismic	Haldimand (Lake Erie)	½	222,000
	Totals	44	1,086,000 + reconnaissance

### Leasing

The number of Licences to Lease Oil and Gas Rights issued in 1963 — 203, is only slightly less than in 1962, indicating the rate of land acquiral was maintained at a high level. The licencees are listed in Table C, and the acreage acquired by counties is shown in Table D. The grand total of 462,150 acres is only slightly less than 1962, definite proof of the continued interest and confidence in Ontario's potential, particularly in the Cambrian sediments. It is a conservative estimate that more than 50% of the land acreage acquired in 1963 was taken with Cambrian exploration as the objective.

Transactions involving Great Lakes acreage were confined to Lake Erie. Acquirals were considerably less than in 1962, and much acreage was surrendered. The total Great Lakes acreage under lease or exploratory licence at year's end was 1,152,122, nearly all in Lake Erie, a decrease of 356,995 acres as compared to the end of 1962. Maps showing the location of the acreage held can be obtained from the Lands Branch of the Ontario Department of Mines.

Referring to Table D, and acreage acquired by counties, it is of interest to note the changes in the pattern of leasing activity. Peterborough County appears for the first time, and there was important acreage taken in Lincoln County.

Bruce County, where Cambrian sediments are present, received much attention, and at time of writing, drilling has begun. Elgin, Haldimand, Kent, Lambton, Middlesex, Norfolk and Oxford Counties were also the scene of intensive leasing. Essex, Wellington, Brant, Elgin, Kent and Perth Counties show a sharp decline in new acreage leased.

TABLE C — PERSONS LICENSED TO LEASE GAS AND OIL RIGHTS, 1963

NAME	ADDRESS
Alcon Petroleum Ltd.....	Calgary, Alta.
Algar, M. E.....	Calgary, Alta.
Allan, H. R.....	Detroit, Mich.
Allegany Producing Corporation.....	Wellsville, N.Y.
Anchor Petroleum Ltd.....	Toronto, Ont.
Aristone, G.....	St. Thomas, Ont.
Arrowhead Exploration Co. Ltd.....	Denver 2, Colorado.
Balmer, Howard J.....	Chatham, Ont.
Beach, P. J.....	St. Catharines, Ont.
Bluewater Oil & Gas Ltd.....	London, Ont.
Bornwitha Mining Co. Ltd.....	Toronto, Ont.
Bova Gas & Development Co.....	Buffalo, N.Y.
Boyce, G.....	Chatham, Ont.
BP Exploration Canada, Ltd.....	London, Ont.
Brady, Findlay & Quillian Ltd.....	Chatham, Ont.
British American Oil Co. Ltd., The.....	Toronto, Ont.
Bryant, D. E.....	London, Ont.
Burton, A. R.....	Toronto, Ont.
Burton, J. T.....	Toronto, Ont.
Bury, V. H.....	West Lorne, Ont.
Bushong, S.....	Indianapolis, Ind.
Camerina Petroleum Corporation.....	Houston, Texas.
Cameron, W. L.....	Lambeth, Ont.
Canadian Essex Oil & Gas Co.....	London, Ont.
Canadian Fina Oil Ltd.....	Calgary, Alta.
Canadian Oil Companies Ltd.....	Calgary, Alta.
Central Del Rio Oils Ltd.....	Calgary, Alta.
Central Pipe Line Co. Ltd. The.....	Chatham, Ont.
Chalton, W. E.....	Tillsonburg, Ont.
Chaney, T. B.....	Rodney, Ont.
Chittim, G.....	Milton, Ont.
Coatsworth, T. E.....	Chatham, Ont.
Collings, G. H.....	Peterborough, Ont.
Consolidated West Petroleum Ltd.....	Toronto, Ont.
Consumers Gas Co., The.....	Toronto, Ont.
Cook, J. T.....	Keenan, Ont.
Coppinger, W. J.....	Wichita 2, Kansas
Coste, E. F.....	Toronto, Ont.

TABLE C—PERSONS LICENSED TO LEASE GAS AND OIL  
RIGHTS, 1963—*Continued*

NAME	ADDRESS
Cruickshank, J. G.....	Toronto, Ont.
Cullen, R. H.....	Toronto, Ont.
Culver, G. D.....	Dunnville, Ont.
Daust, A.....	Campbellford, Ont.
Davis, D. L.....	Wichita 14, Kansas
DeMers, V. E.....	Petrolia, Ont.
Dome Petroleum Ltd.....	Calgary, Alta.
Donnan, B.....	Toronto, Ont.
Doubt, J. M.....	Millbrook, Ont.
Dufton, F. R.....	Chatham, Ont.
Duke, J. W.....	Chesley, Ont.
Eckford, A. C.....	Courtland, Ont.
Electric Reduction Co. of Canada Ltd.....	Toronto, Ont.
Elvidge, R.....	Peterborough, Ont.
Everett, H. E. Jr.....	Detroit, 39, Mich.
Feinberg, B.....	Evansville, Ind.
Feldmeier, B.....	Morriston, Ont.
Feldmeier, L.....	Morriston, Ont.
Felmont Oil Corporation.....	Owensboro, Kentucky.
Ferguson, D. A.....	Chatham, Ont.
Finney, L.....	Wallaceburg, Ont.
Gauld, C. C.....	London, Ont.
Girling, W. H.....	Toronto, Ont.
Gligor, P.....	West Lorne, Ont.
Gough, L.....	Toronto, Ont.
Gull Oil & Gas Ltd.....	Calgary, Alta.
Halidmand Gas & Oil Ltd.....	Cayuga, Ont.
Halls, T. E.....	Fergus, Ont.
Hewgill, R. A.....	Thornbury, Ont.
Home Oil Company Limited.....	Calgary, Alta.
Hues, K.....	Pontypool, Ont.
Hunter, J.....	London, Ont.
Huperz, M.....	Detroit, Mich.
Hussey, G.....	Petrolia, Ont.
Irving, D.....	Simcoe, Ont.
Jackson, P. L. Co.....	Dunnville, Ont.
Jamieson, A. H.....	Tillsonburg, Ont.
Jarvis Hereford Farms.....	Jarvis, Ont.
Johnson, R. D.....	Calgary, Alta.
Jones, G.....	Toronto, Ont.
Killens, A.....	Toronto, Ont.
Knight, H. W.....	Scarboro, Ont.
Kriter, R. E.....	Rodney, Ont.
Layton, J. G. Jr.....	Olean, N.Y.
Long Point Gas and Oil Ltd.....	Simcoe, Ont.

TABLE C—PERSONS LICENSED TO LEASE GAS AND OIL  
RIGHTS, 1963—*Continued*

NAME	ADDRESS
Lyons, S.....	Simcoe, Ont.
Mahaffy, A. M. & M. F.....	Toronto, Ont.
Mallonee, F. W.....	Wichita, Kansas
Mann, R. E.....	Simcoe, Ont.
Markel, R. D.....	Clark Lake, Mich.
McClusky, J. B.....	Scarboro, Ont.
McClusky, J. B. Ltd.....	Willowdale, Ont.
McDonald, G. F.....	London, Ont.
McKenzie, D. F.....	Sarnia, Ont.
McKeough, W. S.....	Cedar Springs, Ont.
McKillop, L. G.....	Tillsonburg, Ont.
McLachlin, D. A.....	Tupperville, Ont.
McLean, A.....	Rodney, Ont.
McMaster, W. R.....	Caledonia, Ont.
McMaster, R. & Sons Co. Ltd.....	Caledonia, Ont.
McMillan, D. A.....	Rodney, Ont.
McMillan, G.....	Blenheim, Ont.
McPherson, R. L.....	Riverside, Ont.
Mid Eastern Oil & Gas Ltd.....	London, Ont.
Mile 18 Mines Ltd.....	Toronto, Ont.
Mohawk Drilling & Exploration Co. Ltd.....	Burlington, Ont.
Molendyk, W.....	Toronto, Ont.
Nemec, J.....	Chatham, Ont.
Nestoruk, P. D.....	Calgary, Alta.
Nixon, G. L.....	London, Ont.
Norgas Development Ltd.....	Simcoe, Ont.
Nussbaum, N.....	Port Huron, Mich.
Ontario Natural Gas Storage & Pipelines Ltd.....	Chatham, Ont.
Palmer, G. W.....	Highgate, Ont.
Pearson, G. R.....	Toronto, Ont.
Penwa Oils Ltd.....	Calgary, Alta.
Pearson, W. L.....	Toronto, Ont.
Petroward Corporation.....	Chicago, Ill.
Place Gas & Oil Co. Ltd.....	Toronto, Ont.
Portelance, D.....	Port Arthur, Ont.
Prosser, C. A.....	Guelph, Ont.
Quibell, R.....	London, Ont.
Railsback, C. M.....	Wichita Falls, Texas
Rawlings, G. H.....	Chatham, Ont.
Rayment, O. B.....	Chatham, Ont.
Reaume, H.....	Chatham, Ont.
Riddell, B.....	Highland Park 3, Mich.
Riddell-Hanna Explorations Ltd.....	Highland Park 3, Mich.
Roberts, C. H.....	Coudersport, Pa.
Rose, G.....	Chatham, Ont.

TABLE C—PERSONS LICENSED TO LEASE GAS AND OIL  
RIGHTS, 1963—*Continued*

NAME	ADDRESS
Rosenblat, R. S.	Scarboro, Ont.
Roth, E. A.	Petrolia, Ont.
Roth, E. L.	Petrolia, Ont.
Roth and Roth Ltd.	Petrolia, Ont.
Rowe, E. P.	Brights Grove, Ont.
Rowe, M. K.	Ottawa, Ont.
Rowe, M. M.	Brights Grove, Ont.
Ruetz, H.	Kincardine, Ont.
Sadlier, L.	Chatham, Ont.
Sagadahoc Oil and Gas Corporation	San Francisco, Cal.
Scott, N. W.	Sault Ste. Marie, Ont.
Seynuck, T.	Acton, Ont.
Shackleton, G. A.	Chatham, Ont.
Sharpe, D. H.	Aylmer, Ont.
Shaw, I. D.	Toronto, Ont.
Shepherd, R. L.	London, Ont.
Simpson, R. W.	Dresden, Ont.
Smith, G. H.	Fort Erie, Ont.
Smith, L. S.	Wichita 2, Kansas
Smith, S. T.	Wichita, Kansas
St. Denis, A.	Rodney, Ont.
Stanwell Oil & Gas Ltd.	Toronto, Ont.
Stewart, Elgin.	Jarvis, Ont.
Stork, C.	Wardsville, Ont.
Strong, W. H.	Perth, Ont.
Sullivan, K.	Highland Park, Mich.
Sumac Oil & Gas Co.	Wichita, Kansas
Sylvestre, L. A.	Chatham, Ont.
Tack, J. D.	St. Clair, Mich.
Texaco Exploration Company	Calgary, Alta.
Thomas, D. W.	Chatham, Ont.
Thompson, J. W.	Chatham, Ont.
Tirkanits, N.	Montreal, Que.
Tobacco Road Oil Company	Wellsville, N.Y.
Tostik, P.	Simcoe, Ont.
Trans Valley Gas & Oil Corporation Ltd.	Toronto, Ont.
Triform Explorations Ltd.	Toronto, Ont.
Tyrrill, E. W.	Fort Erie, Ont.
Union Gas Co. of Canada Ltd.	Chatham, Ont.
Wallis-Auld Oil Syndicate	Watford, Ont.
Walker, C. R.	Riverside, Ont.
Walsh, J. F.	Buffalo, N.Y.
Warner, C. W.	Smith Falls, Ont.
Western Decalta Petroleum Ltd.	Calgary, Alta.
Western Gypsum Products Ltd.	Winnipeg, Man.

TABLE C—PERSONS LICENSED TO LEASE GAS AND OIL  
RIGHTS, 1963—*Continued*

NAME	ADDRESS
Westwell Oil & Gas Ltd.....	Calgary, Alta.
West Point Syndicate.....	Willowdale, Ont.
Westwood, W.....	Dresden, Ont.
Whaling, H. M.....	London, Ont.
Whiteoaks Gas & Oil Ltd.....	Clarkson, Ont.
Whittal, F. L.....	Windsor, Ont.
Whitty, J.....	Toronto, Ont.
Whorton & Associates.....	Wellsville, N.Y.
Willing, K.....	Chatham, Ont.
Willits, D. E.....	Toronto, Ont.
Willsie, G.....	Thedford, Ont.
Wilton, H. R.....	Chatham, Ont.
Wood, J. W.....	Downsview, Ont.
Woodstock Oil & Gas Co. The.....	Wichita, Kansas
Yuez Gas Co.....	Buffalo, N.Y.
Zenith International Petroleum Corp.....	Oklahoma City, Okla.
Zenmac Metal Mines Ltd.....	Toronto, Ont.

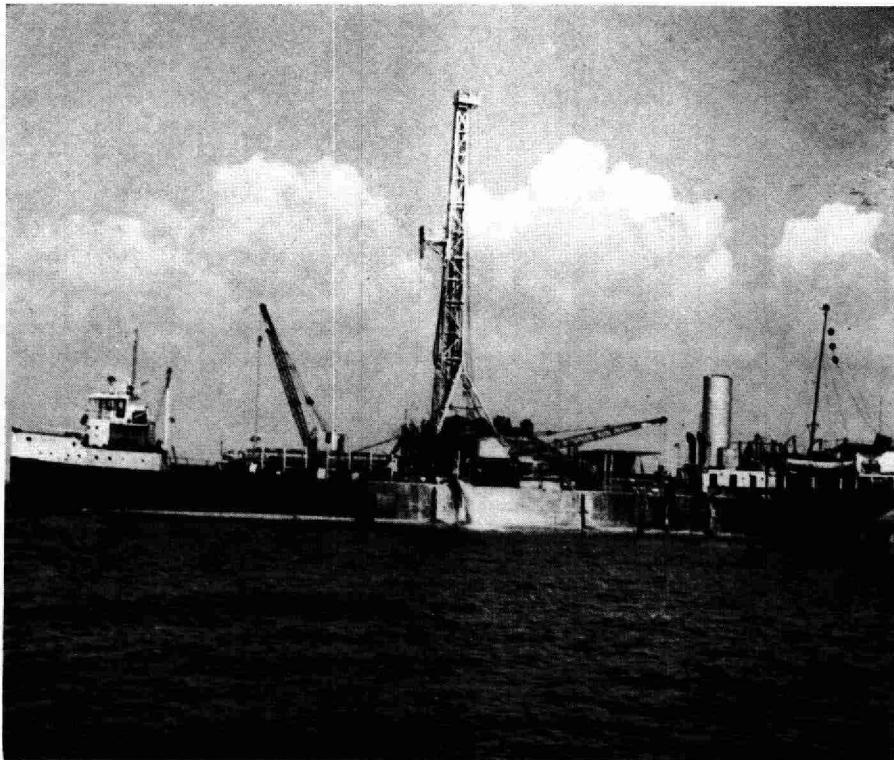
TABLE D—ACREAGE ACQUIRED ON LAND, 1963

County	Acreage	County	Acreage
Brant	10,555	Middlesex	62,660
Bruce	45,880	Norfolk	20,370
Elgin	66,515	Oxford	18,355
Essex	840	Perth	50
Grey	5,400	Peterborough	7,465
Haldimand	34,450	Simcoe	2,050
Huron	3,785	Waterloo	8,400
Kent	29,420	Welland	8,185
Lambton	99,675	Wellington	300
Lincoln	27,100	Wentworth	10,695
<b>Grand Total — 462,150</b>			

### Drilling

#### General

The usual Tables, E to L inclusive, present the pertinent statistics of 1963 drilling. Table E, the drilling summary by location, class and results, reveals that the total number of completions declined from previous years, yet the total footage was substantially higher than in 1962, as a result of the increased number of Cambrian tests. Table F shows Lake Erie completions, an important part of the over-all activity. The total was less than in 1962, but resulted in some significant discoveries.



**Lake Erie Drilling Rig**

Tables G and H, summaries by depth and result, show clearly the continuing trend to deeper drilling. Ordovician and Cambrian wells accounted for 26.7% of the total, compared to 31.2% in 1962 and 18.4% in 1961. The over-all success ratios were most gratifying — 20.4% for exploratory tests and 64.2% for development wells. Note that in making the above calculations, service and other wells not intended to be productive are excluded.

All licensed drilling contractors are listed in Table I. Table J lists all well-permit holders: these are the people who provide the funds and initiative to do the exploratory and development drilling to keep the oil and gas industry alive and flourishing, and the Department wishes them to know that their efforts are appreciated.

#### **Exploratory Drilling**

The results of exploratory drilling were the best on record — 19 successful completions out of 93, for a success ratio of 20.4%. And exploratory drilling constituted a high proportion of total exploratory and development completions — 46%, as compared to 35.9% in 1962, 34% in 1961 and 36.8% in 1960.

The total exploratory footage, 217,600 is the highest since 1955, and an average of 2340 feet per well.

The successful exploratory tests are listed in Table K, and located on the map opposite page 33. Eleven of the 15 successful tests which found gas were in Lake Erie, and can be considered as adding substantially to the indicated gas reserves in the Clinton-Cataract of the eastern half of the Lake. Another discovery was of a Guelph reef in Sombra township, Lambton County, the type and size of which is as yet unknown. The other three successful tests found Clinton-Cataract gas in Norfolk County.

The four tests which found oil can not yet be assessed for potential or significance. Two were Cambrian, one north of the Clearville field near Duart, the other near Verschoyle in Oxford County. The other two were Silurian, both in Lambton County: Salina oil near Brigden and Guelph oil near Sutorville. The latter well produced at a phenomenal rate immediately after stimulation, and has continued to flow to the time of writing. Some of the more important dry exploratory tests are listed in Table L.

### **Development Drilling**

The geographical distribution of the 109 development wells completed in 1963 is shown in Table E. Their classification by target depth is given in Table G and the success ratios are in Table H. The over-all success ratio was down to 64% in 1963 as compared to 74% in 1962, due primarily to poor results from Salina-Guelph development drilling. The total development footage, excluding "other" wells, was 175,153 for an average of 1607 feet per well.

All the Devonian and Salina-Guelph wells were in the four counties of Kent, Lambton, Middlesex and Elgin. The only ones of any significance were five Guelph oil wells near the Dawn-Sombra boundary in Lambton County, which used sand-fracturing techniques with good success.

The Clinton-Cataract completions were nearly all in the Haldimand-Norfolk area, including Lake Erie, and those successful all found gas, 20 of the 41 being offshore and adding significantly to the reserves there.

The 16 successful Cambrian wells all found oil, 6 in Gobles and 10 at Clearville, and helped to push 1963 production figures to a new record high. Both fields now appear to be nearly delineated and Cambrian oil production is expected to level off until further discoveries are made.

One of the Clearville wells deserves special mention, in that it found oil in the Trenton, but production soon declined, and the well was deepened to the Cambrian.

## Index of Gas and Oil Fields

<b>Essex County</b>	38. Bickford (Gas)	75. Rodney (Oil)
1. Malden (Gas & Oil)	39. Duthill (Gas)	76. New Glasgow (Gas)
2. Colchester (Oil)	40. Dawn (Gas & Oil)	77. Crinan (Gas & Oil)
3. Kingsville (Oil)	41. Oakdale (Oil)	78. Townline (Gas)
4. Kingsville—Leamington (Gas)	42. Dawn 167 (Gas)	79. Cowal (Gas)
5. Pelee Island (Oil)	43. Dawn 156 (Gas & Oil)	80. Dutton (Oil)
6. Mersea (Gas & Oil)	44. Waubuno (Gas)	81. Wallacetown (Oil)
7. Staples (Gas & Oil)	45. Kimball-Colinville (Gas & Oil)	(Old Dutton Field)
8. Comber (Gas & Oil)	46. Mooretown (Oil)	82. Malahide (Gas)
9. Belle River (Oil)	47. Payne (Gas)	83. Richmond (Gas)
<b>Kent County</b>	48. Seckerton (Gas & Oil)	84. Vienna (Gas)
10. Lake St. Clair (Gas)	49. Corunna (Gas & Oil)	85. Griffin Corners (Gas)
11. Electric (Gas)	50. Talford (Oil)	86. Eden (Gas)
12. Dover (Gas & Oil)	51. Sarnia (Gas)	<b>Norfolk County</b>
13. Fletcher (Oil)	52. Plympton-Sarnia (Gas & Oil)	87. Cultus (Gas)
14. Tilbury (Gas)	53. Mandaumin (Gas)	88. Long Point (Gas)
15. Glenwood (Oil)	54. Petrolia (Oil)	89. Norfolk (Gas)
16. Romney (Oil)	55. Wanstead (Oil)	<b>Oxford County</b>
17. Wheatley (Gas & Oil)	56. Wilson Croft (Oil)	90. South Norwich (Gas)
18. Stevenson (Oil)	57. Oil Springs (Oil)	91. Brownsville (Gas)
19. D'Clute (Gas)	58. Shetland (Gas & Oil)	92. Innerkip (Gas & Oil)
20. Doyle (Gas)	59. Dante (Oil)	93. Gobles (Gas & Oil)
21. Kipp (Oil)	60. McCready (Oil)	<b>Brant County</b>
22. Richardson's Siding (Oil)	61. Innwood (Oil)	94. Haldimand (Gas & Oil)
23. Wolfe (Gas)	62. Watford-Kerwood (Oil)	<b>Haldimand County</b>
24. Guilds (Gas)	63. Warwick (Oil)	95. Haldimand (Gas)
25. Morpeth (Gas)	<b>Huron County</b>	<b>Welland County</b>
26. Botany (Gas)	64. Bayfield (Gas)	96. Welland (Gas)
27. Clearville (Oil)	65. Zurich (Gas)	<b>Wentworth County</b>
28. Bothwell-Thamesville (Oil)	66. Dashwood (Gas)	97. Rockton (Gas)
29. Zone (Gas)	<b>Middlesex County</b>	<b>Halton County</b>
30. Wabash (Gas & Oil)	67. Grand Bend (Oil)	98. Hornby (Gas)
31. Camden Gore (Gas)	68. Keyser (Gas)	99. Acton (Gas & Oil)
32. Dresden (Gas & Oil)	69. Adelaide (Oil)	<b>Bruce County</b>
33. Chatham (Gas & Oil)	70. Crumlin (Gas)	100. Hepworth (Gas)
34. Chatham Gore (Gas)	71. Glencoe (Oil)	
<b>Lambton County</b>	72. Newberry (Gas)	
35. East Becher (Gas)	73. Wardsville (Gas)	
36. West Becher (Gas & Oil)	<b>Elgin County</b>	
37. Sombra (Gas)	74. Woodgreen (Gas)	

TABLE F—LAKE ERIE DRILLING, 1963

County	Widened		Norfolk		Buck		Total	
Class	E	D	E	D	E	D	E	D
RESULT								
Gas	5	6	6	6	—	—	11	12
Dry	1	4	2	4	1	—	3	6
Unknown	6	10	8	10	1	—	8	10
Total	16		16		1		22	

TABLE G—DRILLING SUMMARY BY DEPTH, 1963

Depth	Devonian		Silurian		Ordovician		Cretaceous		Total	
Class	E	D	E	D	E	D	E	D	E	D
RESULT										
Gas	—	—	15	42	—	—	—	—	15	42
Oil	—	5	2	7	—	—	2	10	4	20
Dry	2	3	44	28	2	5	26	1	74	75
Other	2	9	—	3	—	—	—	—	2	12
Sub-Total	4	17	61	80	2	5	28	19	95	175
Total	21		141		7		47		216	

Footnote—The letters E and D mean exploratory and development.

The category "other" includes all wells not intended for production— for injection, disposal, gas storage, core—and structure-tests, etc.

TABLE H—SUCCESS RATIOS, 1963

	EXPLORATORY			Dry	Total	% Success
	Gas	Oil				
Devonian	—	—		2	2	0.0
Salina-Goshen	1	2		38	41	7.3
Silurian	14	—		6	20	70.0
Clinton-Catarauct	—	—		2	2	0.0
Ordovician	—	2		26	28	7.1
Cincinnatian	—	—				
TOTALS.....	15	4		74	93	26.4

TABLE H — SUCCESS RATIOS, 1963 — *Continued*  
DEVELOPMENT

	Gas	Oil	Dry	Total	% Success
Devonian.....	—	5	3	8	62.5
Silurian { Salina-Guelph.....	1	7	14	22	36.4
Clinton-Cataract.....	41	—	14	55	74.5
Ordovician.....	—	—	5	5	0.0
Cambrian.....	—	16	3	19	84.2
<b>TOTALS.....</b>	<b>42</b>	<b>28</b>	<b>39</b>	<b>109</b>	<b>64.2</b>

TABLE I — OWNERS OF LICENSED DRILLING MACHINES, 1963

NAME	ADDRESS	NO. OF RIGS
Anchor Petroleums Ltd.....	Toronto, Ont.....	1
Brandon, H.....	Oil Springs, Ont.....	1
Central Pipe Line Co. Ltd.....	Chatham, Ont.....	1
Chevalier and Tremblay.....	Chatham, Ont.....	3
Culver Drilling Co. Ltd.....	Dunnville, Ont.....	4
DeMers, V.....	Petrolia, Ont.....	1
Demaray and Nichols.....	Kerrwood, Ont.....	4
Dennis, G. A. and Sons.....	Selkirk, Ont.....	1
Earl, S.....	Kerrwood, Ont.....	3
Emerson, H. L.....	Dunnville, Ont.....	1
English, Emery.....	Port Lambton, Ont.....	1
English, E. Drilling Co.....	Sarnia, Ont.....	1
Evans, G.....	Glencoe, Ont.....	2
Haldimand Gas & Oil Wells Ltd.....	Cayuga, Ont.....	1
Hernandez, E.....	Harrow, Ont.....	1
Irving, D.....	Simcoe, Ont.....	4
Jackson, P. L. Co.....	Dunnville, Ont.....	2
James Drilling Ltd.....	Sombra, Ont.....	2
Jarvis Hereford Farms.....	Jarvis, Ont.....	1
Kingsville Gas Co. Ltd.....	Toronto, Ont.....	1
Kiser, W. R.....	Chatham, Ont.....	2
Lyons, S. and Son.....	Simcoe, Ont.....	2
Mandley Drilling Contractors Ltd.....	Dunnville, Ont.....	6
Marsh, W.....	Bothwell, Ont.....	1
McGaffey, E. R.....	Bothwell, Ont.....	1
McKillop, W. and Sons.....	Tillsonburg, Ont.....	1
McMaster R. and Sons Co. Ltd.....	Caledonia, Ont.....	2
McPherson, R. L. Drilling Ltd.....	Riverside, Ont.....	1
Meier, H. W.....	Paincourt, Ont.....	5
Montgomery Bros.....	Selkirk, Ont.....	1
Nauman, J. R.....	Fisherville, Ont.....	1
Nemec, J.....	Chatham, Ont.....	1

TABLE I — OWNERS OF LICENSED DRILLING MACHINES, 1963  
*Continued.*

NAME	ADDRESS	NO. OF RIGS
Newport, W.....	Wardsville, Ont.....	1
Northern Offshore Drilling Ltd.....	Dunville, Ont.....	1
Patterson, L. G. Drilling Co. Ltd.....	Wallaceburg, Ont.....	3
Place Gas and Oil Co. Ltd.....	Toronto, Ont.....	1
Rawlings Drilling Co. Ltd.....	Chatham, Ont.....	2
Riddell, R.....	Ridgeway, Ont.....	1
Rose, W.....	Port Rowan, Ont.....	1
Shaw, W.....	Merlin, Ont.....	1
Smelser, I. and Sons.....	Jarvis, Ont.....	1
Stevenson, E. Morgan, Drilling Co. Ltd.....	Thamesville, Ont.....	1
Steart, E.....	Jarvis, Ont.....	1
Stubble & Stubble.....	Merlin, Ont.....	3
Thompson, D.....	Nanticoke, Ont.....	1
Underwater Gas Developers Ltd.....	Toronto, Ont.....	1
Union Gas Company of Canada Ltd.....	Chatham, Ont.....	8
Union Rotary Drillers of Canada Ltd.....	Corunna, Ont.....	1

TABLE J — HOLDERS OF WELL PERMITS IN 1963

NAME	ADDRESS
Allgeany Producing Corp.....	Wellsville, N.Y.
Anchor Petroleums Ltd.....	Toronto, Ont.
Anthony Gas and Oil Exploration Ltd.....	Acton, Ont.
Barchild Investments Ltd.....	Hamilton, Ont.
Barnett, A. D.....	Wichita, Kansas
Bengal Development Corp. Ltd.....	Toronto, Ont.
B-F & Associates.....	Plymouth, Mich.
B P Explorations Ltd.....	London, Ont.
Black Cloud Development Corp.....	Warren, Mich.
Bluewater Oil & Gas Co. Ltd.....	London, Ont.
Bradford and Mayo.....	Chatham, Ont.
Brennan, R. J.....	Petrolia, Ont.
Brien, J. B. & Associates.....	Toronto, Ont.
British American Oil Co. Ltd.....	Toronto, Ont.
British Petroleum Exploration Canada, Ltd.....	London, Ont.
Brockman, H. L.....	Olney, Ill.
Canada Cities Service Petroleum Corp.....	Calgary, Alta.
Canadian Delhi Oil Ltd.....	London, Ont.
Canadian Essex Oil Co.....	London, Ont.
Canadian Kewanee Ltd.....	Calgary, Alta.
Carr, W. P.....	Chatham, Ont.
Central Pipe Line Co.....	Aylmer, Ont.
Coppinger, W. J.....	Wichita, Kansas
Earl, S.....	Kerrwood, Ont.
Eckford & Whitty.....	Petrolia, Ont.

TABLE J — HOLDERS OF WELL PERMITS IN 1963 — *Continued.*

NAME	ADDRESS
Elgin Petroleums Corp. Ltd.....	Rodney, Ont.
Electric Reduction Co. of Canada Ltd.....	Toronto, Ont.
Emery English Drilling Co.....	Port Lambton, Ont.
Feinberg, B.....	Evansville, Indiana
Filton Realty Ltd.....	London, Ont.
Finney, A. D.....	Plymouth, Mich.
Haldimand Gas & Oil Wells Ltd.....	Cayuga, Ont.
Home Oil Co. Ltd.....	Calgary, Alta.
Howell, H.....	Brantford, Ont.
Imperial Oil Ltd.....	Chatham, Ont.
Irving, D.....	Simcoe, Ont.
Jarvis Hereford Farms.....	Jarvis, Ont.
Lincoln Natural Gas Ltd.....	Dunnville, Ont.
Lorn-Mac Gas & Oil Syndicate.....	Tillsonburg, Ont.
Lyons, S. & Sons.....	Simcoe, Ont.
McClear & White.....	Detroit, Mich.
McMaster-Kewanee.....	Calgary, Alta.
McMaster, R. and Sons Co. Ltd.....	Caledonia, Ont.
Mitchell, G. & Associates.....	Chatham, Ont.
Mitchell & Mitchell Properties Inc.....	Chatham, Ont.
Nemec & Pere Marquette.....	Chatham, Ont.
Nemec & Scott.....	Chatham, Ont.
Noranda Mines Ltd.....	Toronto, Ont.
Oko Oil & Gas Co.....	Tulsa, Okla.
Peruvian Oil & Minerals Inc.....	Toronto, Ont.
Place Gas & Oil Co. Ltd.....	Toronto, Ont.
Ram Petroleum Ltd.....	Chatham, Ont.
Riddell, Hanna Exploration.....	Highland Park, Mich.
Roberts, C.....	Coudersport, Pa.
Roth & Roth Ltd.....	Petrolia, Ont.
Salina Gas & Oil Co.....	Chatham, Ont.
Spelman, Prentice & Associates.....	Tarrytown, N.Y.
Starlite Gas Co. Ltd.....	Lake Erie County, N.Y.
Stover, J. A.....	Ridgetown, Ont.
Thedford Oil & Gas Exploration Syndicate.....	Ancaster, Ont.
Tobacco Road Oil Co.....	Wellsville, N.Y.
Union Gas Co. of Canada, Ltd.....	Chatham, Ont.
United Reef Petroleums Ltd.....	Chatham, Ont.
Wallis-Auld Syndicate.....	Watford, Ont.
Wellandport Gas Co. Ltd.....	Dunnville, Ont.
Westburne Oil & Development Ltd.....	Toronto, Ont.
West Point Syndicate.....	Toronto, Ont.
Whitty, J. N.....	Chatham, Ont.
York Producing Co. Ltd.....	Bolivar, N.Y.

TABLE K — SUCCESSFUL EXPLORATORY TESTS, 1963

Map Index	Well Name	Location Township, County	Compl. Date	Total Depth	Initial Production	Producing Formation	Deepest Formation Penetrated	Expl. Class
A	S. Earl — Duart No. 1	Orford, Kent	19 Nov.	4,135	5 B.O.P.D.	Cambrian	Precambrian	NF
B	B.P. — Sombra-15-XV	Sombra, Lambton	19 Feb.	2,339	580 Mcf/D	Guelph	Rochester	NF
C	Can. Delhi — Tye No. 1	Moore, Lambton	23 Dec.	2,335	25 B.O.P.D.	Salina	Rochester	NP
D	Earl-Tostik No. 2	Brooke, Lambton	27 Dec.	2,046	150 B.O.P.D.	Guelph	Guelph	NF
E	A. Barnett-Rowson No. 1	Dereham, Oxford	1 July	3,345	10 B.O.P.D.	Cambrian	Precambrian	NF
F	Roberts-Docker No. 1	Middleton, Norfolk	29 Jan.	3,512	80 Mcf/D	Reynales	Cambrian	NF
G	B-F & Assoc. No. 3	Windham, Norfolk	15 Aug.	1,117	483 Mcf/D	Thorold & Grimsby	Cabot Head	NP
H	Lyons — Lee No. 1	Townsend, Norfolk	20 June	941	39 Mcf/D	Thorold	Cabot Head	Ext.
I	Mitchell — 481-14	Lake Erie, Norfolk	27 July	1,775	Unknown	Thorold & Grimsby	Cabot Head	NF
J	Mitchell — 393-6	Lake Erie, Norfolk	2 July	1,630	132 Mcf/D	Thorold & Grimsby	Cabot Head	NF
K	Mitchell — 380-7	Lake Erie, Norfolk	23 June	1,617	756 Mcf/D	Thorold & Grimsby	Cabot Head	NF
L	Mitchell — 343-8	Lake Erie, Norfolk	17 June	1,535	1,282 Mcf/D	Thorold & Grimsby	Cabot Head	NP
M	Mitchell — 202-11	Lake Erie, Norfolk	9 Aug.	1,140	524 Mcf/D	Thorold & Grimsby	Cabot Head	NP
N	Mitchell — 332-9	Lake Erie, Norfolk	8 June	1,521	184 Mcf/D	Grimsby	Cabot Head	NP
O	Place-Walpole No. 42	Lake Erie, Haldimand	24 July	1,016	247 Mcf/D	Reynales & Thorold	Queenston	NP
P	Mitchell — 208-12	Lake Erie, Haldimand	20 Aug.	1,083	2,900 Mcf/D	Thorold & Grimsby	Cabot Head	NP
Q	Mitchell — 202-13	Lake Erie, Haldimand	27 Aug.	1,094	1,147 Mcf/D	Grimsby	Cabot Head	Ext.
R	Mitchell — 212-3	Lake Erie, Haldimand	1 June	1,276	250 Mcf/D	Grimsby	Cabot Head	NP
S	Mitchell — 214-4	Lake Erie, Haldimand	16 May	1,243	187 Mcf/D	Grimsby	Cabot Head	NP

TABLE L—IMPORTANT DRY EXPLORATORY TESTS, 1963

Map Index	Well Name	Location Township, County	Results	Completion Date	Total Depth	Deepest Formation Penetrated	Expl. Class
1	Home Oil — Walpole No. 1	Walpole I.R., Lambton	Dry	7 Nov.	3,788	Precambrian	NF
2	United Reef — Bennell No. 1	Howard, Kent	Dry	27 Aug.	4,097	Precambrian	NF
3	British American — M.I.R. 1	Orford, Kent	Show of Gas	26 Feb.	3,968	Precambrian	NF
4	Allegany Prod. — Bartok No. 1	Orford, Kent	Dry	14 Feb.	4,022	Precambrian	NF
5	Lynwood Securities No. 1	Orford, Kent	Trace of oil	3 April	4,129	Precambrian	NP
6	Imperial Oil No. 847	Aldborough, Elgin	Shows of gas, oil	28 June	3,993	Precambrian	NF
7	Can. Delhi — Carroll No. 1	Ekfrid, Middlesex	Dry	30 Oct.	3,612	Precambrian	NF
8	Canadian Oil — Reive No. 1	Dunwich, Elgin	Shows of gas, oil	13 April	3,836	Precambrian	NF
9	Can. Delhi — Beherall No. 1	Southwold, Elgin	Dry	24 Aug.	3,576	Precambrian	NF
10	Imperial Oil No. 850	Yarmouth, Elgin	Dry	31 July	3,483	Precambrian	NF
11	Imperial Oil No. 842	Norwich N., Oxford	Dry	17 April	3,071	Precambrian	NF
12	Roberts — Docker No. 1	Middleton, Norfolk	Dry	29 Jan.	3,512	Precambrian	NF
13	West Point Synd. No. 1	Brantford, Brant	Dry	15 June	2,690	Precambrian	NF
14	McMaster — Stewart No. 4	Onondaga, Brant	Show of oil	10 May	2,671	Precambrian	DPT
15	Imperial Oil No. 834	Flamborough, Wentworth	Show of oil	26 Jan.	2,387	Precambrian	NF

# The Clearville Field

## Introduction

Prior to the discovery of the Gobles Field in February, 1960, little attention was given to the Cambrian rocks of Ontario as a target for petroleum and natural gas exploration. Since that time, a great deal of interest has been focused on the Upper Cambrian rocks underlying part of Southwestern Ontario; this is especially true for the onshore regions of the approximately 11,000 square miles situated between the International Boundary on the south and a line drawn from Toronto to Walpole Island. This interest has led to the discovery of nine more productive hydrocarbon accumulations and many more gas and oil shows. Among these discoveries, the Clearville Field located in the southeastern corner of Orford Township, Kent County, about 1 mile north of the Lake Erie shoreline, is by far the most significant. This field is somewhat unique in that hydrocarbons occur in a subdued erosional remnant associated with post Middle Devonian faulting. The overlying and down faulted beds of the Middle Ordovician Black River group provide the cap rock.

Apart from this field, most of the Cambrian exploration in Ontario has been aimed at delineating the erosional pinch out edge in hope of finding additional oil and gas pools such as Gobles.

## Stratigraphy

Although the increase in deeper drilling has resulted in better well control in this area, the regional configuration and stratigraphic sequence of the Upper Cambrian rocks has altered very little from that described by Sanford (1962) and Sanford and Quillian (1959). The northwestern limits of these rocks represents an erosional edge onlapping the Precambrian high of the Algonquin Arch along a general line from Hamilton to Walpole Island, and thickening southeastward into the Appalachian Basin where they are estimated to be in excess of 500 feet off Long Point at the International Boundary (Sanford, 1962).

All three Upper Cambrian formations recognized in Southwestern Ontario are represented in the Clearville area. In ascending order, the Mt. Simon is a buff to grey, basal quartzose sandstone containing medium to coarse, well rounded and frosted sand grains, frequently characterized by a few feet of arkose at the base immediately overlying the Precambrian. This unit attains a thickness of about 12 feet in the Clearville area and can be easily recognized from well samples and gamma ray-neutron logs.

The overlying Eau Claire formation consists of a medium grey to brown, fine — to medium — grained dolomitic sandstone with interbedded sandy dolo-

mite. It contains sub-angular to angular quartz grains and varies in thickness from 10 to 15 feet in the Clearville area.

The succeeding Trempealeau formation is comprised of a buff, to brown and grey, fine — to medium — crystalline dolomite, frequently containing well rounded floating quartz grains and numerous sandstone interbeds. The dolomite portions contain numerous bands of pseudo-pelletoidal beds which have good pin-point vugular porosity. This formation is approximately 80 feet thick in the Clearville area.

Immediately overlying and resting unconformably on the Trempealeau is a layer of "green sandstone" varying in thickness from 5 to 16 feet and consisting of medium to coarse, well-rounded and frosted quartz grains with a silty matrix. It contains much glauconite and pyrite and commonly has thin bands of shale and dolomite. Well cuttings from this zone consist mainly of loose quartz grains making it easily recognizable as such throughout the surrounding area. Although regional distribution and correlation remains uncertain for this report, it is included in the Upper Cambrian. In turn, this unit is overlain by the Shadow Lake formation of the Middle Ordovician Black River group.

Figure 1 illustrates the generalized lithologies and thicknesses of the Upper Cambrian and the Middle Ordovician Black River group in the Clearville Field. Structure contours on the top of the Trempealeau formation and the "green sandstone" isopach for the same area are shown in figures 2 and 3 respectively.

### Structure

Hydrocarbon accumulation in the Clearville Field is located in a subdued erosional remnant of the Trempealeau formation associated with post Middle Devonian faulting. The west side is marked by a north-northwest trending normal fault (figure 1 and 2) having a vertical displacement of about 130 feet and extending northward to intersect the east-west striking Electric fault near the Thames River. Caley (1943) first described this fault to explain the sharp break in the subsurface elevation on the top of the Middle Devonian carbonate now commonly known as the Delaware. This fault zone is coincident with a thick Bass Island section in the Upper Silurian which results from early salt leaching from the Salina beds.

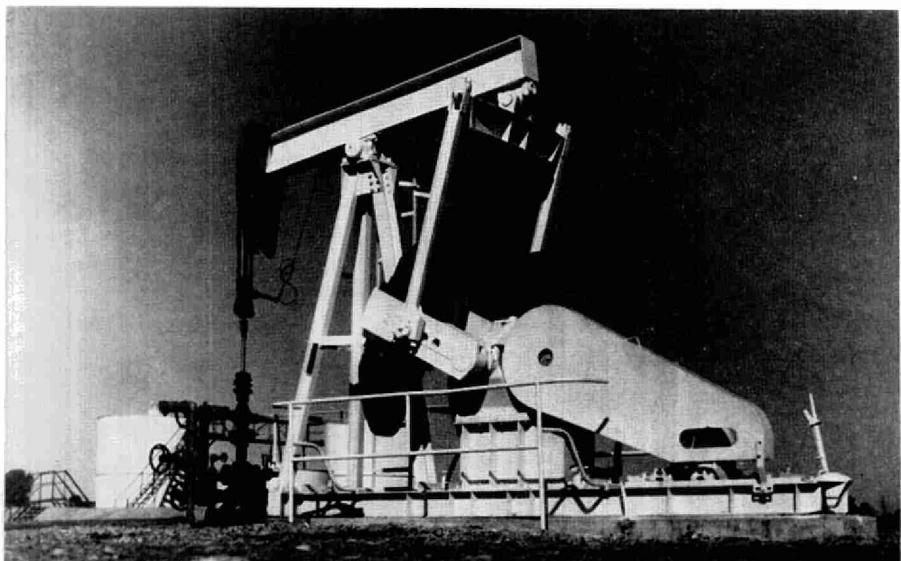
The east side of the field is flanked by a somewhat parallel fault having a vertical displacement varying from 20 to 40 feet. Immediately east of this fault, two deep tests in Lot A, Con. 12, Aldborough twp. Elgin County, indicate a northward dip; this may suggest local movement along an east-west fracture zone intersecting these faults on the north side of the field. Projected structure contours on the top of the Trempealeau do not indicate closure on that end.

## Drilling and Production

The discovery well, Tobacco Road Oil No. 1, located in lot 55, Con. S.T.R., Orford twp., Kent County, encountered the Cambrian at a depth of 3931 (—3282) feet and was completed with a natural initial flow of 250 BOPD through the casing from the interval 3954 to 3963 feet. It was drilled in February, 1962, by C. D. Whorton and produced approximately 20,000 barrels of oil during the first 6 months. As of June 1964, 17 wells have been completed as oil producers on 50 acre spacing with one dry hole on the south, one on the west, and two on the east, immediately outside the fault zone. One stepout about  $\frac{3}{4}$  of a mile to the southwest found the Cambrian on the downthrown side of the north-northwest trending fault, 144 feet lower than the discovery well. Another stepout,  $\frac{1}{2}$  mile to the northwest has been suspended at a depth of 4098 feet; further information on this well remains confidential at time of writing (June, 1964).

During 1963, the Clearville Field surpassed the Devonian Rodney Field as Ontario's largest oil producer accounting for 19.4 percent of the province's crude oil production. As of December 31, 1963, the total cumulative production was 333,720 barrels of oil with an average of 43 barrels per day per well for that month.

Some of the wells were originally produced by natural flow, but waxing conditions necessitated the installation of pumps equipped with scraper rods. Only a few of the wells required acid or fracture stimulation as many of them yielded over 100 barrels per day naturally. Varying amounts of natural gas and salt water are produced requiring fluid separation and treatment prior to refining. The gravity of the oil is 38.8 API degrees.



Producing well Clearville Field

**DEPARTMENT OF ENERGY RESOURCES  
PROVINCE OF ONTARIO**  
**TABLE E—SUMMARY OF WELL COMPLETIONS, 1963**

COUNTY — TOWNSHIP	EXPLORATORY					DEVELOPMENT					OTHER		
	Gas	Oil	Dry	Total	Footage	Gas	Oil	Dry	Total	Footage	No.	Type	Footage
<b>BRANT</b>													
Brantford.....			1	1	2,690								
Burford.....			3	3	8,682			5		5	14,438		
Onondaga.....			2	2	5,331	1				1	512		
<b>ELGIN</b>													
Aldborough.....			3 <sup>1</sup>	3	5,948	1		4	5	10	12,037	4	W.I. 1,677
Bayham.....						1				1	1,416		
Dunwich.....			3	3	11,623				3	3	4,456		
Southwold.....			1	1	3,576								
Yarmouth.....			1	1	3,483								
<b>ESSEX</b>													
Colchester S.....			1	1	2,428								
Gosfield S.....									1	1	2,569		
Lake Erie.....			1	1	1,021								
Malden.....			1	1	2,720				1 <sup>2</sup>	1	2,583		
<b>HALDIMAND</b>													
Cayuga N.....						9			1	10	8,452		
Lake Erie.....	5		1	6	6,964	6		4	10	10	9,745		
Sherbrooke.....						2			2	2	1,738		
Walpole.....									1	1	950		
<b>HALTON</b>													
Esquesing.....									3	3	5,918		
<b>HURON</b>													
Stephen.....			2	2	3,782								
<b>KENT</b>													
Chatham.....			1	1	1,977				1	1	1,690		
Howard.....			1	1	4,097								
Orford.....			1	6	28,265			10 <sup>3</sup>		10	39,772	{ 1 1	S.T. D. 1,384
<b>LAMBERTON</b>													
Bosanquet.....			1	1	2,432								
Brooke.....	1 <sup>4</sup>		2	3	5,892								
Dawn.....			5	5	10,035			4	2	6	11,828		
Enniskillen.....			2	2	4,515			1		1	480	1	C.T. 401
Euphemia.....									2	2	780		
Moore.....			1	9	10	24,125		1	2 <sup>5</sup>	3	2,859	1	C.T. 499
Plympton.....			3	3	7,913								
Sarnia.....			2	2	5,314								
Sombra.....	1		2	3	6,775			2	3	5	10,375	{ 2 2	P.S. W.I. W.S. 2,392 5,882
Walpole Island.....			1	1	3,788								
Warwick.....			6	6	13,139							1	S.T. 394
<b>MIDDLESEX</b>													
Ekfrid.....			2	2	4,214								
McGillivray.....			1	1	1,946			2		2	3,144		
Mosa.....													
<b>NORFOLK</b>													
Charlottesville.....						4			4	4	5,298		
Lake Erie.....	6		2	8	12,638	6		4	10	10	13,603		
Middleton.....	1 <sup>6</sup>		1	2	6,923								
Townsend.....	1		1	2	1,900			2	2	2	1,951		
Walsingham S.....								1	1	1	1,473		
Windham.....	1		3	4	3,509	4			4	4	4,388		
<b>OXFORD</b>													
Blandford.....									1	1	2,889		
Blenheim.....								1		1	2,918		
Dereham.....			1		1	3,345							
Norwich N.....			1		1	3,071							
<b>PERTH</b>													
Blanshard.....			1	1	1,152								
<b>WELLAND</b>													
Wainfleet.....						6			6	6	3,906		
Willoughby.....								1	1	1	575		
<b>WENTWORTH</b>													
Beverly.....									1	1	2,410		
Flamborough W.....			1	1	2,387								
<b>TOTALS.....</b>	15	4	74	93	217,600	42	28	39	109	175,153	14		12,629

GRAND TOTAL = 216 Completions — 405,382 feet

S.T. — Structure Test.

W.I. = Water Injection.

W.S. = Water Source.

D = Disposal.

P.S. = Petroleum Products Storage.

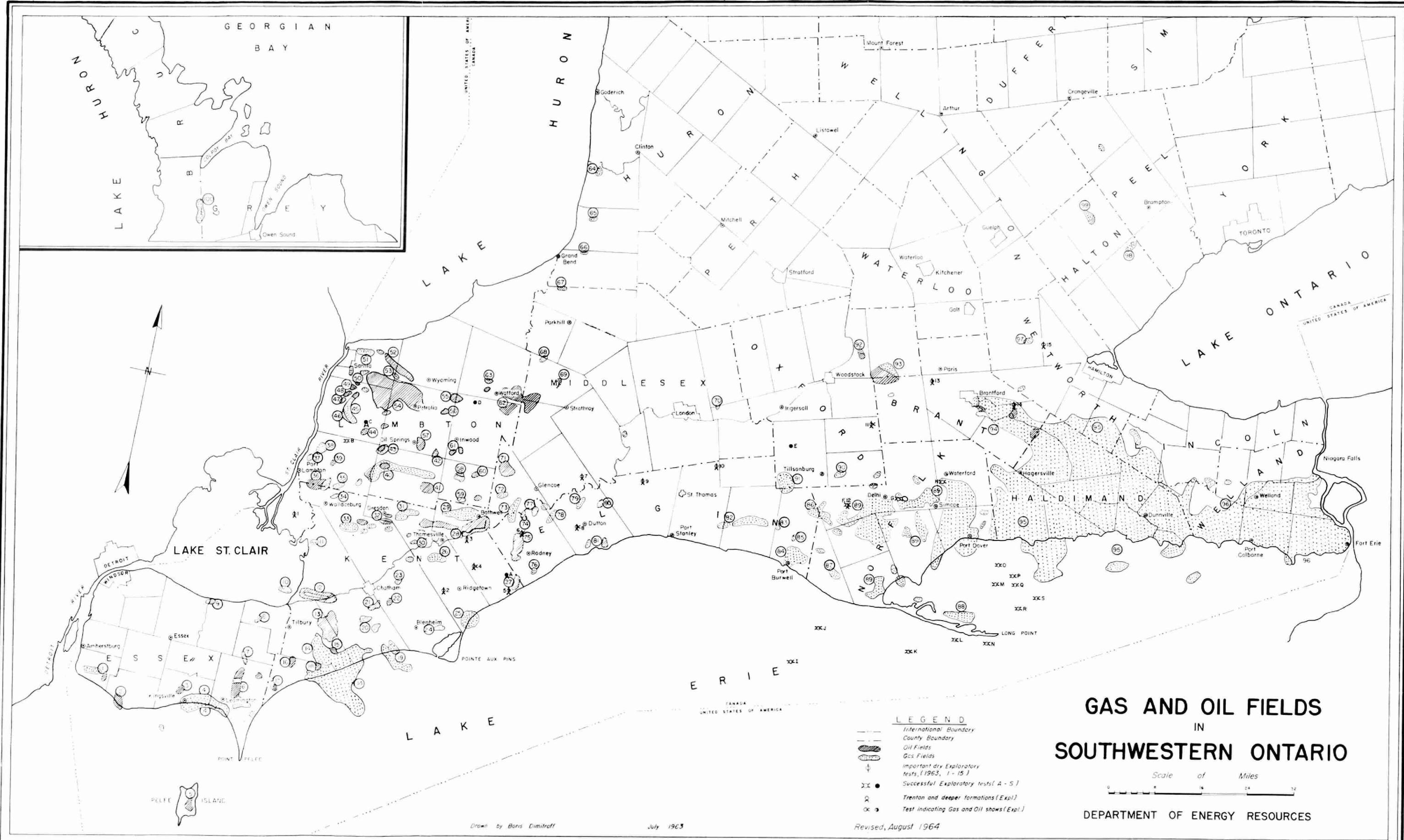
C.T. = Core Test.

W.D.B. — B.D.

**Notes to Drilling Summary**

- (1) Includes one deepening to Cambrian, previously suspended in Upper Ordovician.
- (2) Converted to a disposal well.
- (3) One well found and produced Trenton oil then was deepened to Cambrian. Could be classed as non-commercial shallower pool discovery.
- (4) Commercial potential not apparent, until stimulated in February 1964.
- (5) Deepenings, A1 to Guelph, Seckerton pool.
- (6) Cambrian test which found Silurian gas.

FIGURE No. 2



A

Lynwood Sec.  
Boy Scouts No. 1

T.R.-5

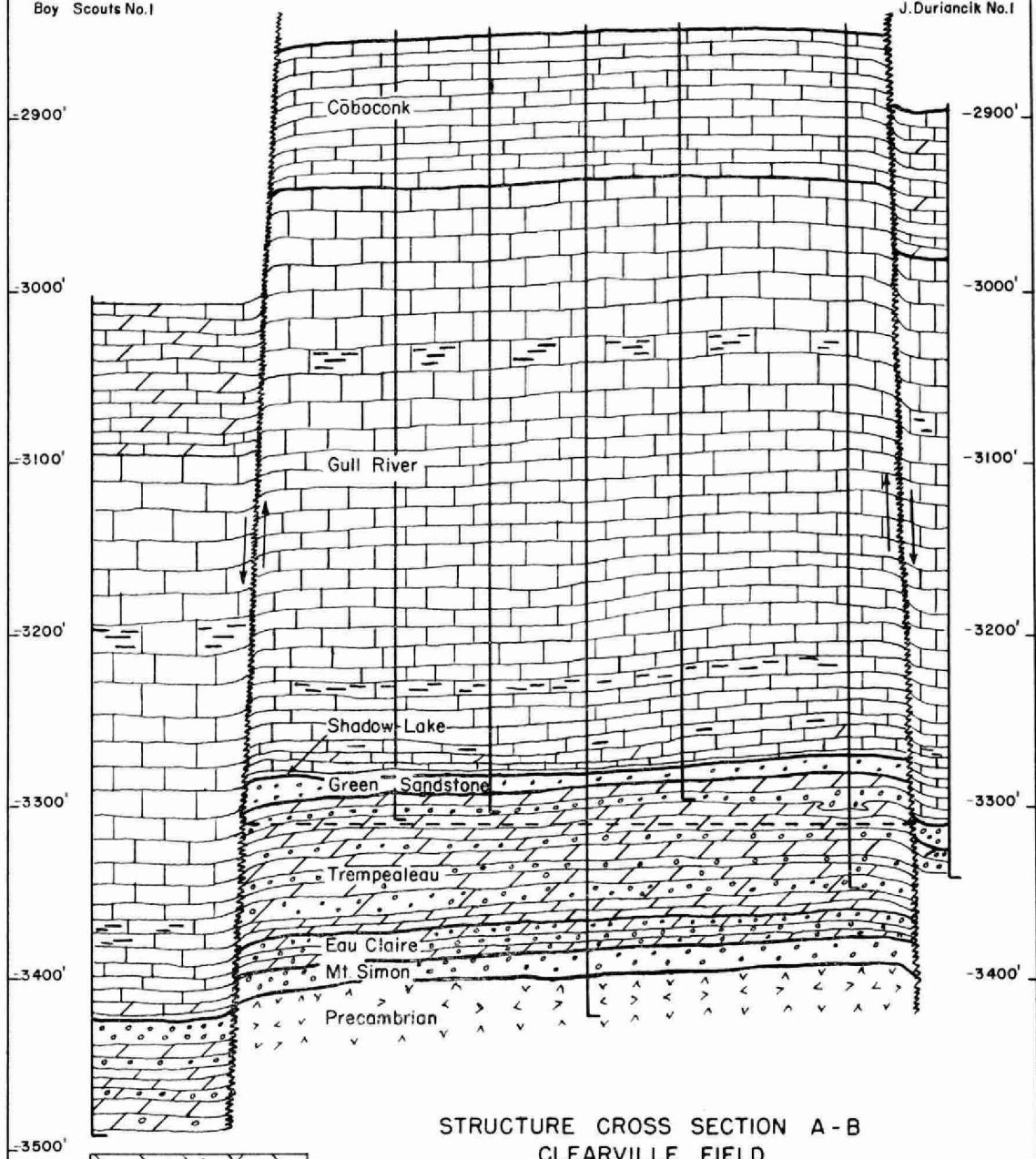
T.R.-4

Imp 808

Imp. 814

Imp. S.

329 Allegany Prod.  
J.Duriancik No.1



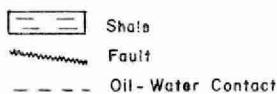
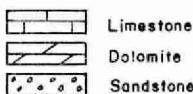
STRUCTURE CROSS SECTION A - B  
CLEARVILLE FIELD

### Horizontal Scale

Miles

## INDEX MAP

#### LEGEND



## FIGURE 1

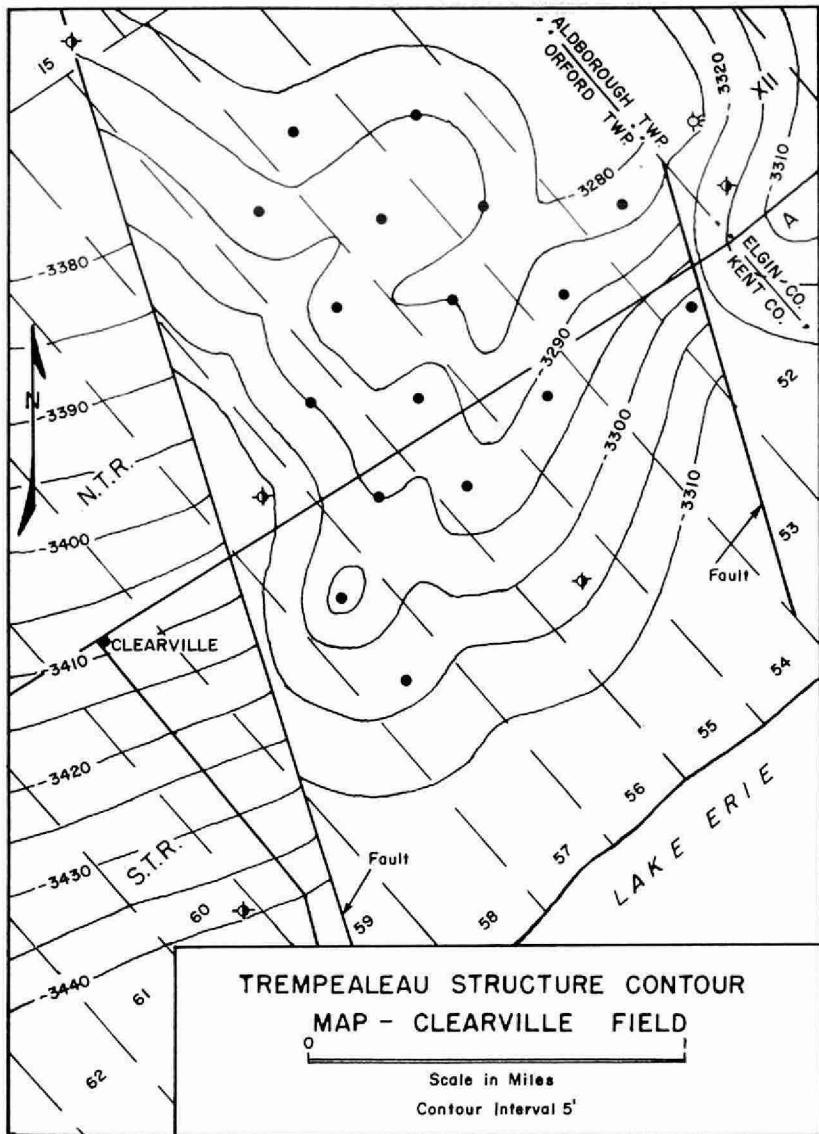


FIGURE 2

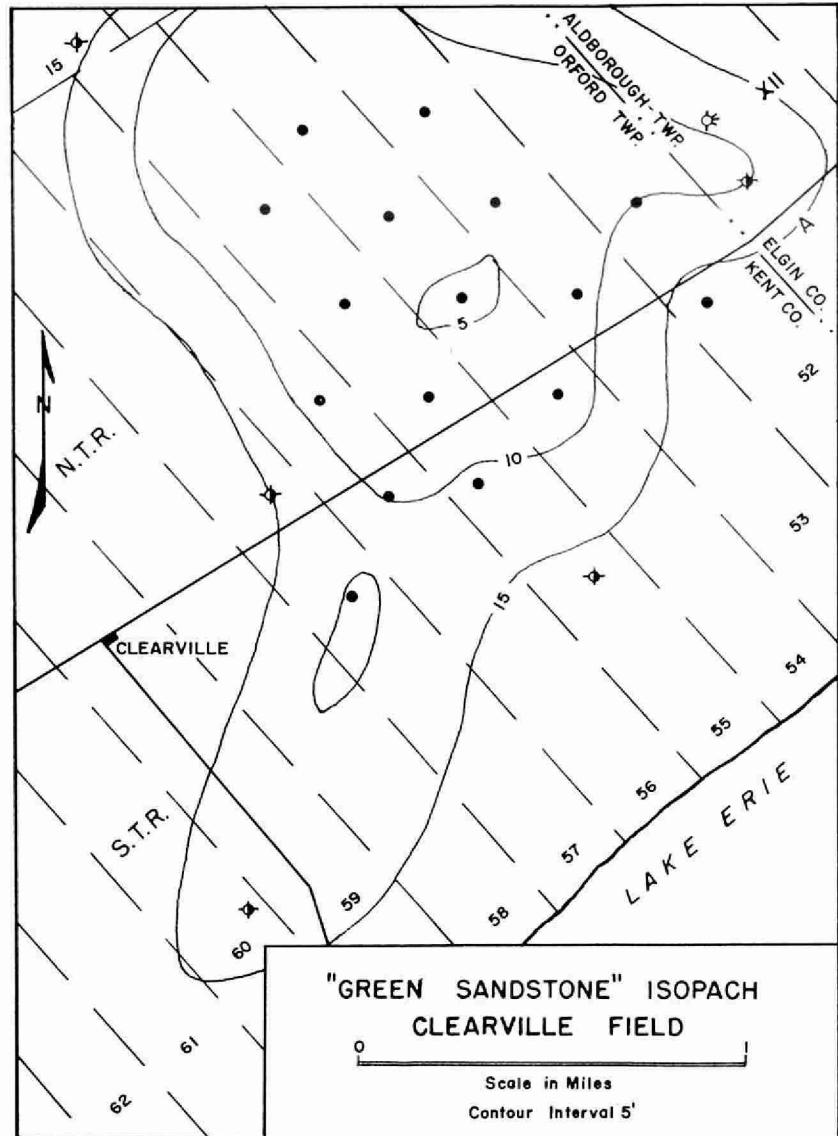


FIGURE 3

It is significant to note that one of the development wells, Tobacco Road Oil No. 6, located in Lot 57, Con. S.T.R. was initially completed as an oil producer from a fractured zone in the lower portion of the Kirkfield formation (Middle Ordovician Trenton group) at a depth of 3472–3487 feet but later deepened to become a Cambrian oil well.

### **Reservoir Rocks**

Production in the Clearville Field is obtained from the interfingering dolomitic sandstone and sandy dolomite occurring in the uppermost part of the Trempealeau formation. Although a few wells record initial shows and production from the overlying "green sandstone", it is generally impermeable, and along with the Shadow Lake and the down faulted Gull River beds, provides the cap rock. Figure 3 illustrates the thinning of this unit in the centre of field and thickening on the outer fringes to drape over the eroded Trempealeau.

Although the sandstones facies have a better development of porosity and permeability many of the dolomite zones contain pseudopelletoidal bands which have excellent vertical permeability and constitute a significant part of the reservoir. The net pay thickness is in the order of 10 feet with an average porosity of 12 per cent. Gas in solution coupled with a strong water drive have maintained a relatively high reservoir pressure. An oil-water contact has been established at about —3311 feet and the original formation pressure was recorded at 1,725 PSI (Oakley, 1963).

Ultimate recoverable reserves have been estimated at two million barrels (MacKay and O'Shea, 1963).

### **Conclusions**

Exploration for hydrocarbons in the Upper Cambrian rocks in Southwestern Ontario has reached an alltime high, and with the addition of three new discoveries in the first 5 months of 1964, this pace should be maintained with rewarding results. The Clearville Field itself, although geographically small (approximately 1000 acres), is not entirely developed and should prove to be one of Ontario's best oil producers. Only 7 wells have penetrated the Upper Cambrian rocks underlying the Canadian waters of the Great Lakes, and the nearest test to the Clearville Field is more than 50 miles distant. This area, plus much of the onshore acreage, requires full evaluation.

As an exploration tool, magnetic, gravity and seismic surveys have been disappointing. The best guide is detailed subsurface mapping utilizing the control obtained from the many shallower tests and the information acquired from

regional and local drilling which includes samples, cores, mechanical logs, and accurate pressure records.

### Acknowledgments

The writer is indebted to B. V. Sanford of the Geological Survey of Canada for suggestions and criticism during the preparation of this report. He also wishes to thank his colleagues of the Energy Branch of this department who have helped supply and prepare the data. In addition, he extends his appreciation to the Geological Survey of Canada for the use of its facilities and accommodation.

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## Section 4 — Logs of Wells for 1963

### Introduction

The following tabulation of geological logs lists all wells drilled for gas and oil in Ontario and completed in 1963. It also includes those wells for such associated purposes as injection programs, structure tests, storage, etc. Also included are previously drilled wells that were deepened and penetrated a lower geological formation.

Approximately one quarter of all the wells drilled were completed in the Trenton or older rocks.

It should be noted that lake well locations, as well as some land locations, are described by co-ordinates given in terms of latitude and longitude.

Copies of these logs showing more detail are available from the Department at 25¢ each.

### Abbreviations

bbl/d.....	Barrel(s) per day
B.F.....	Broken Front
B.F.E.D.....	Broken Front Eastern Division
con.....	Concession
c/l.....	Centre line of lot
D.F.....	Derrick Floor
E.D.....	Eastern Division
E.F.C.....	East of Fairchild Creek
F.C.E.M.M.....	Front Concession East of the Mohawk Mission
F.C.....	Front Concession
I.R.....	Indian Reserve
K.B.....	Kelly Bushing
L.E.....	Lake Erie
Mcf/d.....	Thousand cubic feet per day
N.E.R.....	North of the Egremont Road
N.M.R.....	North of the Middle Road
N.R.....	Not recorded
N.T.R.....	North of the Talbot Road
P.B.....	Plugged back
psig.....	Pounds per square inch gauge
R.R.....	Railroad
S.E.R.....	South of Egremont Road
S.L.R.....	South of Longwood Road
S.M.R.....	South of the Middle Road
S.T.R.....	South of Talbot Road
S.W.....	Source Well
T.D.....	Total Depth
tp.....	Township
W.D.....	Western Division
W.D.F.C.....	Western Division of Front Concession
WHP.....	Well head pressure

# LOGS OF WELLS FOR 1963

BRANT

46

## WEST POINT SYNDICATE No. 1

Brantford tp., lot 21, con. I.

Co-ordinates: 510' S., 100' E.  
Elevation: 828' + 3'.  
Driller: P. L. Jackson Co.  
Completed: June 15, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	168
Salina.....	171	51
Top of A2—171		
Guelph-Lockport.....	222	270
Rochester.....	492	41
Irondequoit.....	533	5
Reynales.....	538	6
Cabot Head.....	544	72
Manitoulin.....	616	19
Whirlpool.....	635	2
Queenston.....	637	505
Meaford-Dundas.....	1,142	683
Collingwood.....	1,825	122
Cobourg.....	1,947	195
Sherman Fall.....	2,142	141
Kirkfield.....	2,283	152
Gull River.....	2,435	197
Shadow Lake.....	2,632	8
Precambrian.....	2,640	50
Total Depth:.....		2,690'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 180'.	Show at 2,330'.

## H. L. BROCKMAN-CHANT No. 1

Burford tp., lot 15, con. VI.

Co-ordinates: 2,775' N., 721' E.  
Elevation: 849' + 4'.  
Driller: Mandley Drilling Contractors, Ltd.  
Completed: September 6, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	91
Salina.....	95	270
Top of A2—303		
Guelph-Lockport.....	365	364
Rochester.....	729	55
Irondequoit.....	784	8
Reynales.....	792	5
Cabot Head.....	797	59
Manitoulin.....	856	27
Whirlpool.....	883	2
Queenston.....	885	535
Meaford-Dundas.....	1,420	600
Collingwood.....	2,020	138
Cobourg.....	2,158	194
Sherman Fall.....	2,352	122
Kirkfield.....	2,474	171
Gull River.....	2,645	231
Shadow Lake.....	2,876	4
Eau Claire.....	2,880	13
Precambrian.....	2,893	6
Total Depth:.....		2,899'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 95'.	Show at 2,178'.	Show at 2,889' to
Slightly Sulphur at 318'.		2,892'.
Salt at 2,790'.		

## B. B. FEINBERG-ALLGOOD No. 1

Burford tp., lot 7, con. IX.

Co-ordinates: 600' N., 500' W.  
Elevation: 827' + 3'.  
Driller: S. Earl.  
Completed: September 14, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	93
Salina.....	96	256
Top of A2—298		
Guelph-Lockport.....	352	348
Rochester.....	700	48
Irondequoit.....	748	6
Reynales.....	754	2
Thorold.....	756	4
Cabot Head.....	760	68
Manitoulin.....	828	23
Whirlpool.....	851	4
Queenston.....	855	520
Meaford-Dundas.....	1,375	680
Collingwood.....	2,055	133
Cobourg.....	2,188	142
Sherman Fall.....	2,330	170
Kirkfield.....	2,500	157
Gull River.....	2,657	233
Shadow Lake.....	2,890	4
Cambrian.....	2,894	11
Precambrian.....	2,905	4
Total Depth:.....		2,909'.

Geologist: W. E. Koepke.

Water

Fresh at 35' and 104'.  
Sulphur at 331'.

## IMPERIAL BURFORD 7-12-III (864)

Burford tp., lot 12, con. III.

Co-ordinates: 582' N., 1,248' W.  
Elevation: 855' + 4'.  
Driller: Chevalier & Tremblay.  
Completed: December 20, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	112
Salina.....	116	206
Top of A2—252		
Guelph-Lockport.....	322	370
Rochester.....	692	53
Irondequoit.....	745	7
Reynales.....	752	12
Cabot Head.....	764	56
Manitoulin.....	820	30
Queenston.....	850	580
Meaford-Dundas.....	1,430	556
Collingwood.....	1,986	148
Cobourg.....	2,134	198
Sherman Fall.....	2,332	118
Kirkfield.....	2,450	165
Gull River.....	2,615	227
Shadow Lake.....	2,842	3
Eau Claire.....	2,845	8
Precambrian.....	2,853	21
Total Depth:.....		2,874'.

Geologist: W. E. Koepke.

Water

Fresh at 100' and 120'.  
Sulphur at 165' and 324'.  
Gas at 300' to 336' and 744' to 762'.

## KEWANEE McMaster-GOBLES No. 22

Burford tp., lot 17, con. I.

Co-ordinates: 1,744' N., 500' W.  
 Elevation: 893' + 3'.  
 Driller: McMaster Drilling Co., Ltd.  
 Completed: October 25, 1963.  
 Result: Oil Producer.  
 Reported Flow: 30 bbl/d.

Formation	Top	Thickness
Drift.....	3	155
Salina.....	158	202
Top of A2—302		
Guelph-Lockport.....	360	375
Rochester.....	735	47
Irondequoit.....	782	10
Reynales.....	792	10
Cabot Head.....	802	56
Manitoulin.....	858	22
Queenston.....	880	584
Meaford-Dundas and Collingwood.....	1,464	666
Cobourg.....	2,130	165
Sherman Fall.....	2,295	172
Kirkfield.....	2,467	151
Gull River.....	2,618	236
Shadow Lake.....	2,854	4
Eau Claire.....	2,858	15
Precambrian.....	2,873	4
Total Depth:.....		2,877'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 85' and 195'.	At 2,860' to 2,874'.

## R. McMaster No. 30-GOBLES No. 19

Burford tp., lot 18, con. I.

Co-ordinates: 1,677' S., 500' E.  
 Elevation: 912' + 2'.  
 Driller: R. McMaster & Sons Co., Ltd.  
 Completed: May 11, 1963.  
 Result: Oil Producer.  
 Reported Flow: 15 bbl/d.

Formation	Top	Thickness
Drift.....	2	168
Salina.....	170	222
Top of A2—335		
Guelph-Lockport.....	392	346
Rochester.....	738	64
Irondequoit.....	802	7
Reynales.....	809	11
Cabot Head.....	820	58
Manitoulin.....	878	18
Whirlpool.....	896	8
Queenston.....	904	483
Meaford-Dundas.....	1,387	633
Collingwood.....	2,020	115
Cobourg.....	2,135	205
Sherman Fall.....	2,340	142
Kirkfield.....	2,482	158
Gull River.....	2,640	233
Shadow Lake.....	2,873	12
Eau Claire.....	2,885	10
Total Depth:.....		2,895'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 30', 185' and 225'.	At 2,878' to 2,894'.

## KEWANEE McMaster-GOBLES No. 23

Burford tp., lot 18, con. I.

Co-ordinates: 1,750' N., 500' W.  
 Elevation:  
 Driller: McMaster Drilling Co., Ltd.  
 Completed: December 17, 1963.  
 Result: Oil Producer.  
 Reported Flow: 50 bbl/d.

Formation	Top	Thickness
Drift.....	0	155
Salina.....	155	229
Top of A2—328		
Guelph-Lockport.....	384	386
Rochester.....	770	44
Irondequoit.....	814	6
Reynales.....	820	10
Thorold.....	830	5
Cabot Head.....	835	40
Manitoulin.....	875	40
Whirlpool.....	915	10
Queenston.....	925	449
Meaford-Dundas and Collingwood.....	1,374	786
Cobourg.....	2,160	205
Sherman Fall.....	2,365	125
Kirkfield.....	2,490	152
Coboconk.....	2,642	54
Gull River.....	2,696	181
Shadow Lake.....	2,877	3
Cambrian.....	2,880	15
Precambrian.....	2,895	3
Total Depth:.....		2,898'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 110' and 190'.	At 2,884' to 2,896'.

## McMASTER No. 31-GOBLES No. 20

Burford tp., lot 16, con. I.

Co-ordinates: 570' N., 485' E.  
 Elevation: 892' + 3'.  
 Driller: R. McMaster & Sons Co., Ltd.  
 Completed: June 29, 1963.  
 Result: Oil Producer.  
 Reported Flow: 60 bbl/d.

Formation	Top	Thickness
Drift.....	3	127
Salina.....	130	220
Top of A2—292		
Guelph-Lockport.....	350	378
Rochester.....	728	58
Irondequoit.....	786	8
Cabot Head.....	794	76
Manitoulin.....	870	20
Queenston.....	890	596
Meaford-Dundas and Collingwood.....	1,486	652
Cobourg.....	2,138	162
Sherman Fall.....	2,300	176
Kirkfield.....	2,476	152
Gull River.....	2,628	232
Shadow Lake.....	2,860	2
Cambrian.....	2,862	16
Precambrian.....	2,878	4
Total Depth:.....		2,882'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 112' and 185'.	At 2,862' to 2,878'.

McMASTER ET AL-GOBLES No. 21  
Burford tp., lot 17, con. II.

Co-ordinates: 606' S., 513' W.  
Elevation: 892' + 3'.  
Driller: R. McMaster & Sons Co., Ltd.  
Completed: September 12, 1963.  
Result: Oil Producer.  
Reported Flow: 30 bbl/d.

Formation	Top	Thickness
Drift.....	3	136
Salina.....	139	211
Top of A2—288		
Guelph-Lockport.....	350	380
Rochester.....	730	48
Irondequoit.....	778	10
Reynales.....	788	8
Cabot Head.....	796	56
Manitoulin.....	852	28
Queenston.....	880	604
Meaford-Dundas.....	1,484	506
Collingwood.....	1,990	142
Cobourg.....	2,132	105
Sherman Fall.....	2,337	131
Kirkfield.....	2,468	152
Gull River.....	2,620	236
Shadow Lake.....	2,856	4
Eau Claire.....	2,860	18
Precambrian.....	2,878	6
Total Depth:.....		2,884'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 130' and 150'.	At 2,863' to 2,878'.

CANADIAN DELHI No. 23  
Onondaga tp., lot 55, con. Front Con. E.M.M.

Co-ordinates: 2,900' N. of Hwy. 54, 300' E.  
Elevation: 654' + 3'.  
Driller: Chevalier & Tremblay.  
Completed: May 25, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	75
Salina.....	78	18
Top of A2—83		
Guelph-Lockport.....	96	244
Rochester.....	340	45
Irondequoit.....	385	7
Reynales.....	392	10
Thorold.....	402	10
Grimsby.....	412	8
Cabot Head.....	420	52
Manitoulin.....	472	18
Whirlpool.....	490	10
Queenston.....	500	610
Meaford-Dundas.....	1,110	705
Collingwood.....	1,815	127
Cobourg.....	1,942	172
Sherman Fall.....	2,114	130
Kirkfield.....	2,244	158
Gull River.....	2,402	216
Shadow Lake.....	2,618	6
Eau Claire.....	2,624	34
Precambrian.....	2,658	2
Total Depth:.....		2,660'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 70' and 95'.	Show at 2,630' and 2,632'.

## HELEN H. HOWELL No 1

Onondaga tp., lot 16, con. E.F.C.

Co-ordinates: 450' S. of Rd., 400' E. of Fairchild Creek.  
Elevation:  
Driller: D. Thomson.  
Completed: December 7, 1963.  
Result: Gas Producer.  
Reported Flow: 25 Mcf/d. WHP. 130 psig.

Formation	Top	Thickness
Drift.....	0	71
Guelph-Lockport.....	71	253
Rochester.....	324	50
Irondequoit.....	374	8
Reynales.....	382	4
Thorold.....	386	8
Cabot Head.....	394	70
Manitoulin.....	464	10
Whirlpool.....	474	12
Queenston.....	486	26
Total Depth:.....		512'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 80'.	Show at 390' and 467' to 487'.

## McMASTER No. 10-STEWART No. 3

Onondaga tp., lot 7, con. III.

Co-ordinates: 1,000' S., 150' E.  
Elevation: 674' + 4'.  
Driller: W. R. McMaster & Sons Co., Ltd.  
Completed: May 10, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	79
Guelph-Lockport.....	83	262
Rochester.....	345	42
Clinton.....	387	28
Grimsby.....	415	20
Manitoulin.....	435	63
Whirlpool.....	498	4
Queenston.....	502	684
Meaford-Dundas.....	1,186	631
Collingwood.....	1,817	109
Cobourg.....	1,926	164
Sherman Fall.....	2,090	140
Kirkfield.....	2,230	157
Gull River.....	2,387	205
Shadow Lake.....	2,592	10
Cambrian.....	2,602	32
Precambrian.....	2,634	37
Total Depth:.....		2,671'.

N.B.  
Previously drilled (Nov. 29, 1956).  
Deepening (May 10, 1963).

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 116'.	Show at 516'.	Show at 516' to 518' and 2,605' to 2,631'.

ALLEGANY No. 85—DURIANCIK No. 1  
Aldborough tp., lot A, con. XII.

Co-ordinates: 1,003' S. of c/l. 505' E. of Rd.

Elevation: 649' + 4'.

Driller: H. Meier.

Completed: May 6, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	182
Hamilton.....	186	229
Delaware.....	415	169
Columbus.....	584	52
Detroit River.....	636	100
Bois Blanc.....	736	186
Oriskany.....	922	36
Bass Island.....	958	165
Salina.....	1,123	512
Top of A2—1,512.		
Top of A1—1,604		
Guelph-Lockport.....	1,635	272
Rochester.....	1,907	43
Reynales.....	1,950	2
Cabot Head.....	1,952	120
Manitoulin.....	2,072	33
Queenston.....	2,105	400
Meaford-Dundas.....	2,505	470
Collingwood.....	2,975	135
Cobourg.....	3,110	120
Sherman Fall.....	3,230	120
Kirkfield.....	3,350	203
Coboconk.....	3,553	79
Gull River.....	3,632	332
Shadow Lake.....	3,964	5
Cambrian.....	3,969	9
Trempealeau.....	3,978	15
Total Depth.....		3,993'.

Geologist: W. E. Koepke.

Water

Fresh at 195'.  
Sulphur at 572' and 920'.  
Salt at 1,667' and 3,991'.

Gas

Show at 3,968' to 3,970'  
and 3,989' to 3,991'.

## CANADA-CITIES SERVICE No. 11

Aldborough tp., lot 5, con. V.

Co-ordinates: 450' S., 200' W.

Elevation: 661' + 1'.

Driller: S. Earl.

Completed: September 19, 1963.

Result: Water Injection Well.

Formation	Top	Thickness
Drift.....	1	223
Dundee.....	224	113
Columbus.....	337	22
Detroit River.....	359	4
Total Depth.....		363'.

Geologist: W. E. Koepke.

Water

Fresh at 163'.  
Show at 338' to 358'.

## CANADA-CITIES SERVICE No. 12

Aldborough tp., lot 5, con. VI.

Co-ordinates: 1,720' S., 750' W.

Elevation: 698' + 1'.

Driller: Sydney Earl.

Completed: November 27, 1963.

Result: Water Injection Well.

Formation	Top	Thickness
Drift.....	1	249
Dundee.....	250	165
Columbus.....	415	21
Total Depth.....		436'.

Geologist: W. E. Koepke.

Water

Not recorded  
(Rotary Well).  
Show at 416' to 433'.ELGIN PETROLEUM No. 42  
Aldborough tp., lot 5, con. VI.

Co-ordinates: 504' S., 511' W. of c/l.

Elevation: 693' + 1'.

Driller: Demaray and Nichols.

Completed: August 22, 1963.

Result: Oil Producer.

Reported Flow: 18 bbl/d.

Formation	Top	Thickness
Drift.....	1	241
Dundee.....	242	146
Columbus.....	388	26
Detroit River.....	414	2
Total Depth.....		416'.

Geologist: W. E. Koepke.

Water

Not recorded.

Oil

At 393' to 416'.

ELGIN PETROLEUM No. 43  
Aldborough tp., lot 5, con. VI.

Co-ordinates: 1,004' S., 511' W. of c/l.

Elevation: 691' + 1'.

Driller: Demaray and Nichols.

Completed: September 4, 1963.

Result: Oil Producer.

Reported Flow: 6 bbl/d.

Formation	Top	Thickness
Drift.....	1	241
Dundee.....	242	193
Columbus.....	385	34
Total Depth.....		419'.

Geologist: W. E. Koepke.

Water

Not recorded.

Oil

At 396' to 419'.

ELGIN PETROLEUM No. 44  
Aldborough tp., lot 4, con. VI.

Co-ordinates: 375' S., 321' E.

Elevation: 693' + 1'.

Driller: Demaray and Nichols.

Completed: September 20, 1963.

Result: Water Injection Well.

Formation	Top	Thickness
Drift.....	1	259
Dundee.....	260	158
Columbus.....	418	17
Total Depth.....		435'.

Geologist: W. E. Koepke.

Water

Fresh at 232'.

Salt at 433'.

ELGIN PETROLEUM No. 45  
Aldborough tp., lot 4, con. VI.

Co-ordinates: 1,255' S., 785' E.

Elevation: 693' + 1'.

Driller: Demaray and Nichols.

Completed: October 3, 1963.

Result: Oil Producer.

Reported Flow: 20 bbl/d.

Formation	Top	Thickness
Drift.....	1	258
Dundee.....	259	148
Columbus.....	407	22
Total Depth.....		429'.

Geologist: W. E. Koepke.

Water

Gas

Show at 215'.

Oil

At 417' to 418'.

## ELGIN PETROLEUM No. 46

Aldborough tp., lot 4, con. VI.

Co-ordinates: 1,553' S., 754' W.

Elevation: 693' + 1'.

Driller: Demaray and Nichols.

Completed: November 9, 1963.

Result: Oil Producer.

Reported Flow: 25 bbl/d.

Formation	Top	Thickness
Drift.....	1	256
Dundee.....	257	159
Columbus.....	416	11
Total Depth:.....	427'.	
Geologist: W. E. Koepke.		
Water	Oil	
Fresh at 227'.	A1 414' to 437'.	

## E. ENGLISH No. 1-McLEAN No. 1A

(C. B. Lewis No. 17—Deepening)

Aldborough tp., lot 5, con. XII.

Co-ordinates: 1,300' N. of Hwy. No. 3, 760' E.

Elevation: 654' + 2'.

Driller: E. English Drilling Co.

Completed: October 16, 1963.

Result: Suspended.

Previously drilled by C. B. Lewis in year 1960 to a total depth of 2,450'. See Gas and Oil Well logs — 1960.

Formation	Top	Thickness
Queenston (Drilled 1960),.....	2,074	377
Queenston,.....	—	19
Meaford-Dundas.....	2,470	605
Cobourg.....	3,075	105
Sherman Fall,.....	3,180	138
Kirkfield,.....	3,318	192
Coboconk,.....	3,510	75
Gull River,.....	3,585	365
Shadow Lake,.....	3,950	8
Cambrian.....	3,958	12
Total Depth:.....	3,970'.	
Geologist: W. E. Koepke.		
Water		
Salt at 3,968'.		

## FLASHER OIL &amp; GAS No. 1

Aldborough tp., lot 22, con. B-B.F.E.D.

Co-ordinates: 1605' N., 243' E.

Elevation: 695' + 4'.

Driller: E. English Drilling Co.

Completed: August 22, 1963.

Result: Gas Producer.

Reported Flow: 70 Mcf/d. WHP. 600 psig.

Formation	Top	Thickness
Drift,.....	4	254
Hamilton,.....	258	82
Dundee,.....	340	165
Columbus,.....	505	10
Detroit River,.....	515	205
Bois Blanc,.....	720	208
Bass Island,.....	928	162
Salina,.....	1,090	389

Top of A2—1,350

Top of A1—1,455

Total Depth:..... 1,479'.

Geologist: W. E. Koepke.

Water Gas Oil

Sulphur at 660' At 1,390' to 1,430'. Show at 1,390' to 1,430'.

## ELGIN PETROLEUM No. 47

Aldborough tp., lot 4, con. VI.

Co-ordinates: 1,555' S., 1,154' W.

Elevation: 694' + 1'.

Driller: Demaray and Nichols.

Completed: November 28, 1963.

Result: Water Injection Well.

Formation	Top	Thickness
Drift.....	1	264
Dundee.....	265	165
Columbus.....	430	13
Total Depth:.....	443'.	
Geologist: W. E. Koepke.		
Water		
Fresh at 230'.		

## IMPERIAL No. 847

Aldborough tp., lot 11, con. V.

Co-ordinates: 1,522 N., 495' W.

Elevation: 695' + 4'.

Driller: Stubble and Stubble, Ltd.

Completed: June 28, 1963.

Result: Abandoned.

Reported Flow: 250 Mcf/d. WHP N.R. psig.

Formation	Top	Thickness
Drift.....	4	249
Hamilton.....	253	67
Delaware.....	320	165
Columbus.....	485	25
Detroit River,.....	510	94
Bois Blanc,.....	604	284
Oriskany,.....	888	27
Bass Island,.....	915	155
Salina,.....	1,070	692

Top of A2—1,561

Top of A1—1,648

Guelph-Lockport.....	1,762	170
Rochester.....	1,932	48
Reynales.....	1,980	8
Grimsby.....	1,988	16
Cabot Head.....	2,004	86
Manitoulin,.....	2,090	30
Queenston,.....	2,120	395
Meaford-Dundas,.....	2,515	415
Collingwood,.....	2,930	124
Cobourg,.....	3,054	106
Sherman Fall,.....	3,160	154
Kirkfield,.....	3,314	199
Coboconk,.....	3,513	77
Gull River,.....	3,590	321
Shadow Lake,.....	3,911	9
Cambrian,.....	3,920	12
Trempealeau,.....	3,932	38
Eau Claire,.....	3,970	14
Precambrian,.....	3,984	9

Total Depth:..... 3,993'.

Geologist: W. E. Koepke.

Water Gas Oil

Sulphur at 490' Show at 3,916' Show at 3,973'.

Salt at 3,928'.

## NEMEC &amp; PERE MARQUETTE No. 1

Aldborough tp., lot 5, con. VI.

Co-ordinates: 1,375' N., 265' E. of c/l.

Elevation: 696' + 1'.

Driller: J. Nemec.

Completed: May 23, 1963.

Result: Oil Show.

Formation	Top	Thickness
Drift.....	1	257
Dundee.....	258	157
Columbus.....	415	15
Total Depth:.....	430'.	

Geologist: W. E. Koepke.

Water

Fresh at 258'.

Sulphur at 356'.

Oil

Show at 426' to 428'.

## NEMEC &amp; SCOTT No. 1

Aldborough tp., lot 6, con. VI.

Co-ordinates: 450' S. of c/l., 765' W.

Elevation: 695' + 1'.

Driller: J. Nemec.

Completed: June 26, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	261
Delaware.....	262	158
Columbus.....	420	15
Total Depth:.....	435'.	

Geologist: W. E. Koepke.

Water

Fresh at 232' and 260'.

Sulphur at 431'.

## UNION-MOSALD 58

Aldborough tp., lot Z, con. A—B.F.E.D.

Co-ordinates: 1,900' S., 150' E.

Elevation: 688' + 4'.

Driller: H. Meier.

Completed: July 13, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	176
Hamilton.....	180	206
Dundee.....	386	138
Columbus.....	524	41
Detroit River.....	565	110
Bois Blanc.....	675	155
Bass Island.....	830	96
Salina.....	926	540
Top of A2—1,318		
Top of A1—1,422		
Total Depth:.....	1,466'.	

Geologist: W. E. Koepke.

Water

Fresh at 155'.

Sulphur at 600'.

Gas

Show at 1,424' to 1,446'  
and 1,456' to 1,461'.

## UNION-MOSALD 59

Aldborough tp., lot Z, con. A—B.F.E.D.

Co-ordinates: 900' N., 725' W.

Elevation: 687' + 4'.

Driller: H. Meier.

Completed: June 17, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	202
Hamilton.....	206	231
Dundee.....	437	133
Columbus.....	570	60
Detroit River.....	630	110
Bois Blanc.....	740	154
Bass Island.....	894	90
Salina.....	984	499
Top of A2—1,316		
Top of A1—1,412		
Guelph-Lockport.....	1,483	24
Total Depth:.....	1,507'.	

Geologist: W. E. Koepke.

Water

Fresh at 160'.

Sulphur at 600'.

Gas

Show at 1,415'.

## UNION-MOSALD 61

Aldborough tp., lot Y, con. I.E.D.

Co-ordinates: 1,225' S., 900' E.

Elevation: 690' + 2'.

Driller: H. W. Meier.

Completed: July 17, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	258
Hamilton.....	260	119
Dundee.....	379	141
Columbus.....	520	82
Detroit River.....	602	102
Bois Blanc.....	704	201
Bass Island.....	905	95
Salina.....	1,000	471
Top of A2—1,332		
Top of A1—1,422		
Total Depth:.....	1,471'.	

Geologist: W. E. Koepke.

Water

Fresh at 180'.

Sulphur at 526' and 536'.

## CENTRAL PIPE LINE-THURSTON No. 2

Bayham tp., lot 16, con. V.

Co-ordinates: 400' N., 265' E. of Highway No. 19.

Elevation: 750' + 2'.

Driller: The Central Pipe Line Co., Ltd.

Completed: March 22, 1963.

Result: Gas Producer.

Reported Flow: 10 Mcf/d. WHP. 120 psig.

Formation	Top	Thickness
Drift.....	2	278
Delaware.....	280	88
Columbus.....	368	30
Detroit River.....	398	100
Bois Blanc.....	498	128
Bass Island.....	626	52
Salina.....	678	398
Top of A2—1,002		
Top of A1—1,060		
Guelph-Lockport.....	1,076	256
Rochester.....	1,332	40
Reynales.....	1,372	19
Thorold.....	1,391	5
Cabot Head.....	1,396	20
Total Depth:.....	1,416'.	

Geologist: W. E. Koepke.

Water

Fresh at 288'.

Gas

At 1,370' to 1,403'.

## IMPERIAL-FELMONT DUNWICH 5-VIII (852)

Dunwich tp., lot 5, con. VIII.

Co-ordinates: 1,540' S., 594' E.  
 Elevation: 691 + 3'.  
 Driller: Stubble & Stubble, Ltd.  
 Completed: August 29, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	317
Hamilton.....	320	37
Delaware.....	357	179
Columbus.....	536	39
Detroit River.....	575	81
Bois Blanc.....	656	322
Bass Island.....	978	142
Salina.....	1,120	456
Top of A2—1,450		
Top of A1—1,526		
Guelph-Lockport.....	1,576	255
Rochester.....	1,831	48
Reynales.....	1,879	9
Grimsby.....	1,888	27
Cabot Head.....	1,915	75
Manitoulin.....	1,990	25
Queenston.....	2,015	465
Meaford-Dundas.....	2,480	450
Collingwood.....	2,930	132
Cobourg.....	3,062	112
Sherman Fall.....	3,174	148
Kirkfield.....	3,322	190
Coboconk.....	3,512	88
Gull River.....	3,600	272
Shadow Lake.....	3,872	6
Cambrian.....	3,878	113
Precambrian.....	3,991	8
Total Depth:.....		3,999'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 160'.	Show at 3,720'.	Show at 3,878' to
Sulphur at 330' to 395'.		3,884' and
Salt at 1,631', 3,582' and 3,740'.		3,969' to 3,974'.

## UNION-MOSALD No. 60

Dunwich tp., lot 1, con. A—B.F.

Co-ordinates: 650' N., 200' E.  
 Elevation: 700' + 2'.  
 Driller: H. W. Meier.  
 Completed: June 19, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	298
Hamilton.....	300	124
Delaware.....	424	138
Columbus.....	562	48
Detroit River.....	610	120
Bois Blanc.....	730	180
Bass Island.....	910	92
Salina.....	1,002	480
Top of A2—1,332		
Top of A1—1,420		
Guelph-Lockport.....	1,482	22
Total Depth:.....		1,504'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 245'.	Show at 1,334' to 1,336'
Sulphur at 609'.	and 1,428 to 1,442'.

## IMPERIAL DUNWICH 23-A (857)

Dunwich tp., lot 23, con. A.

Co-ordinates: 1,150' N., 990' W.  
 Elevation: 759' + 4'.  
 Driller: Chevalier & Tremblay Drilling Co., Ltd.  
 Completed: October 29, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	300
Dundee.....	304	122
Detroit River.....	426	159
Bois Blanc.....	585	257
Bass Island.....	842	98
Salina.....	940	436
Top of A2—1,267		
Top of A1—1,338		
Guelph-Lockport.....	1,376	272
Rochester.....	1,648	40
Reynales.....	1,688	16
Grimsby.....	1,704	8
Cabot Head.....	1,712	63
Manitoulin.....	1,775	51
Queenston.....	1,826	470
Meaford-Dundas.....	2,296	454
Collingwood.....	2,750	121
Cobourg.....	2,871	117
Sherman Fall.....	2,988	157
Kirkfield.....	3,145	179
Coboconk.....	3,324	86
Gull River.....	3,410	280
Shadow Lake.....	3,690	4
Trempealeau.....	3,694	24
Eau Claire.....	3,718	61
Precambrian.....	3,779	9
Total Depth:.....		3,788'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 180' and 312'.	Show at 1,700' to 1,710'
Sulphur at 843'.	and 3,701' to 3,704'.
Salt at 1,403' and 3,701'.	

## UNION-MOSALD No. 62

Dunwich tp., lot 3, con. II.

Co-ordinates: 1,150' S., 485' W.

Elevation: 694' + 2'.  
 Driller: H. W. Meier.  
 Completed: August 22nd, 1963.  
 Result: Abandoned.  
 Reported Flow: 285 Mcf/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	2	267
Hamilton.....	269	69
Delaware.....	338	142
Columbus.....	480	68
Detroit River.....	548	100
Bois Blanc.....	648	232
Bass Island.....	880	96
Salina.....	976	476
Top of A2—1,308		
Top of A1—1,405		
Total Depth:.....		1,452'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 216'.	Show at 1,405' to	Show at 1,405' to
Sulphur at 483'.	1,410', 1415'.	1,410'.
Salt at 1,419'.	At 1,429' to 1,434',	
	and 1,452'.	

UNION-MOSALD No. 63  
Dunwich tp., lot 2, con. II.

Co-ordinates: 1,950' S., 925' E.  
Elevation: 692' + 2'.  
Driller: H. W. Meier.  
Completed: November 6, 1963.  
Result: Abandoned.

Reported Flow: 36.8 Mcf/d. WHP. 464 psig.

Formation	Top	Thickness
Drift.....	2	298
Hamilton.....	300	49
Dundee.....	349	118
Columbus.....	467	123
Detroit River.....	590	65
Bois Blanc.....	655	237
Bass Island.....	892	104
Salina.....	996	482
Top of A2 — 1,320		
Top of A1 — 1,416		
Guelph-Lockport.....	1,478	22
Total Depth.....	1,500'	
Geologist: W. E. Koepke.		
Water	Gas	
Fresh at 200'.	At 1,325', 1,403',	
Sulphur at 480'.	1,418' and 1,426'.	
Salt at 1,484'.		

WHITE ROSE-IMPERIAL DUNWICH No. 7—VI  
Dunwich tp., lot 7, con. VI.

Co-ordinates: 640' S., 665' W.  
Elevation: 716' + 3'.  
Driller: S. Earl.  
Completed: April 13, 1963.  
Result: Gas Producer, abandoned.  
Reported Flow: 1.2 MMcf/d. WHP. 150 psig.

Formation	Top	Thickness
Drift.....	3	309
Hamilton.....	312	78
Delaware.....	390	168
Columbus.....	558	77
Detroit River.....	635	95
Bois Blanc.....	730	155
Bass Island.....	885	95
Salina.....	980	422
Top of A2 — 1,315		
Guelph-Lockport.....	1,402	298
Rochester.....	1,700	46
Reynales.....	1,746	14
Thorold.....	1,760	12
Cabot Head.....	1,772	83
Manitoulin.....	1,855	35
Queenston.....	1,890	471
Meaford-Dundas.....	2,361	440
Collingwood.....	2,801	115
Cobourg.....	2,916	114
Sherman Fall.....	3,030	147
Kirkfield.....	3,177	205
Coboconk.....	3,382	76
Gull River.....	3,458	295
Shadow Lake.....	3,753	7
Trempealeau.....	3,760	67
Precambrian.....	3,827	9
Total Depth.....	3,836'.	

Geologist: W. E. Koepke & R. G. Bryant.

Water	Gas	Oil
Fresh at 290'.	At 3,760'.	Show at 3,786 to
Sulphur at 581', 915' and 1,481'.		3,836'.
Salt at 3,761'.		

CANADIAN DELHI No. 24  
Southwold tp., lot 19, con. IV.

Co-ordinates: 470' N., 1,000' W.  
Elevation: 739' + 3'.  
Driller: Chevalier & Tremblay.  
Completed: August 24, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	277
Dundee.....	280	107
Detroit River.....	387	143
Bois Blanc.....	530	188
Bass Island.....	718	72
Salina.....	790	429
Top of A2—1,106		
Top of A1—1,172		
Guelph-Lockport.....	1,219	255
Rochester.....	1,474	50
Reynales.....	1,524	18
Cabot Head.....	1,542	41
Manitoulin.....	1,583	62
Queenston.....	1,645	510
Meaford-Dundas.....	2,155	425
Collingwood.....	2,580	131
Cobourg.....	2,711	124
Sherman Fall.....	2,835	150
Kirkfield.....	2,985	187
Coboconk.....	3,172	70
Gull River.....	3,242	279
Shadow Lake.....	3,521	8
Cambrian.....	3,529	43
Precambrian.....	3,572	4
Total Depth.....	3,576'.	

Geologist: W. E. Koepke.

Water	Sulphur at 280' and 460'.	Salt at 3,535'.
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IMPERIAL OIL ENTERPRISES YARMOUTH 16—XIV  
Yarmouth tp., lot 16, con. XIV.

Co-ordinates: 1,590' N., 694' E.  
Elevation: 813' + 4'.

Driller: Chevalier & Tremblay.  
Completed: July 31, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	226
Delaware.....	230	110
Detroit River.....	340	125
Bois Blanc.....	465	160
Bass Island.....	625	83
Salina.....	708	386
Top of A2—1,000		
Top of A1—1,070		
Guelph-Lockport.....	1,094	251
Rochester.....	1,345	47
Irondequoit.....	1,392	10
Reynales.....	1,402	10
Cabot Head.....	1,412	72
Manitoulin.....	1,484	28
Queenston.....	1,512	498
Meaford-Dundas.....	2,010	508
Collingwood.....	2,518	128
Cobourg.....	2,646	182
Sherman Fall.....	2,828	128
Kirkfield.....	2,956	148
Coboconk.....	3,104	80
Gull River.....	3,184	251
Shadow Lake.....	3,435	5
Cambrian.....	3,440	40
Precambrian.....	3,480	3
Total Depth.....	3,483'.	

Geologist: W. E. Koepke.

Water	Fresh at 91'.	Sulphur at 234' and 330'.
		Salt at 1,120' and 3,448'.

IMPERIAL FINA COLCHESTER SOUTH 2-3 (851)  
Colchester South tp., lot 2, con. III.

Co-ordinates: 550' N., 860' W.  
Elevation: 627' + 4'.  
Driller: L. O. Patterson Drilling Co., Ltd.  
Completed: August 3, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	116
Detroit River.....	120	130
Sylvania.....	250	30
Bois Blanc.....	280	82
Bass Island.....	362	223
Salina.....	585	533
Top of A2—979		
Top of A1—1,068		
Guelph-Lockport.....	1,118	346
Rochester.....	1,464	6
Reynales.....	1,470	5
Dyer Bay.....	1,475	3
Cabot Head.....	1,478	107
Manitoulin.....	1,585	45
Queenston.....	1,630	274
Meaford-Dundas.....	1,904	246
Collingwood.....	2,150	127
Cobourg.....	2,277	59
Sherman Fall.....	2,336	92
Total Depth:.....		2,428'.

Geologist: W. E. Koepke.

Water                    Oil  
Fresh at 90' and 126'.     Show at 2,343'.  
Salt at 1,001' and 2,418'.  
Sulphur at 1,136'.

OKO No. 16—L. E. PELEE No. 03-1  
Lake Erie.

Co-ordinates: 41° 47' 12" N., 82° 32' 20" W.  
Elevation: 572' + 11' D.F.  
Driller: Mandley Drilling Contractors, Ltd.  
Completed: August 24, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Lake.....	11	32
Drift.....	43	40
Delaware.....	83	69
Columbus.....	152	30
Detroit River.....	182	160
Bass Island.....	342	162
Salina.....	504	486

Top of A2—881  
Top of A1—960

Guelph-Lockport..... 990                    31  
Total Depth:..... 1,021'.

Geologist: W. E. Koepke.

Water                    Gas

Sulphur 87' and 428'.     Show at 902' to 1,010'.  
Salt at 1,010'.

## CONSOLIDATED WEST PETROLEUM No. 104

Malden tp., lot 63, con. VI.

BRITISH PETROLEUM No. 2  
Gosfield South tp., lot 7, con. W.D.F.C.

Co-ordinates: 800' S., 500' W.  
Elevation: 622' + 3'.  
Driller: Demaray & Nichols.  
Completed: February 21, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	94
Detroit River.....	97	187
Bois Blanc.....	284	81
Bass Island.....	370	168
Salina.....	538	503
Top of A2—942		
Top of A1—1,009		
Guelph-Lockport.....	1,041	435
Rochester.....	1,476	4
Reynales.....	1,480	2
Dyer Bay.....	1,482	13
Cabot Head.....	1,495	115
Manitoulin.....	1,610	42
Queenston.....	1,652	292
Meaford-Dundas.....	1,944	286
Collingwood.....	2,230	38
Cobourg.....	2,368	58
Sherman Fall.....	2,426	92
Kirkfield.....	2,518	51
Total Depth:.....		2,569'.

Geologist: W. E. Koepke.

Water                    Gas  
Fresh at 45'     Show at 975'.  
and 98'.  
Salt at 560', 1,060' and 2,498'.

Co-ordinates: 531' S., 1,605' E.

Elevation: 589' + 4'.

Driller: Mandley Drilling Contractors, Ltd.

Completed: March 5, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	60
Detroit River.....	64	101
Bois Blanc.....	165	102
Bass Island.....	267	183
Salina.....	450	542
Top of A2—847		
Top of A1—929		
Guelph-Lockport.....	992	338
Rochester.....	1,330	8
Reynales.....	1,338	6
Cabot Head.....	1,344	100
Manitoulin.....	1,444	56
Queenston.....	1,500	166
Meaford-Dundas and Collingwood.....	1,666	475
Cobourg.....	2,141	59
Sherman Fall.....	2,200	58
Kirkfield.....	2,258	212
Coboconk.....	2,470	34
Gull River.....	2,504	79
Total Depth:.....		2,583'.

Geologists: B. Sandford and W. E. Koepke.

Water                    Oil  
Fresh at 80'     Show at 2,210'.  
Sulphur at 269'.  
Salt at 1,055' and 2,547'.

## IMPERIAL-FINA MALDEN No. 42 (832)

Malden tp., lot 42, con. IV.

Co-ordinates: 560' S., 1,620' W.  
 Elevation: 605' + 4'.  
 Driller: Mandley Drilling Contractors, Ltd.  
 Completed: March 28, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift	4	43
Detroit River	47	142
Sylvania	189	49
Bois Blanc	238	120
Bass Island	358	173
Top of A2—1,075		
Top of A1—1,178		
Guelph-Lockport	1,222	328
Rochester	1,550	13
Reynales	1,563	4
Cabot Head	1,567	73
Manitoulin	1,640	69
Queenston	1,709	265
Meaford-Dundas	1,974	207
Collingwood	2,181	144
Cobourg	2,325	65
Sherman Fall	2,390	133
Kirkfield	2,523	141
Coboconk	2,664	56
Total Depth:		2,720'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 65'.	Shows at 2,340'	Shows at 2,364 to
Sulphur at 1,086'.	and 2,358'.	2,369' and 2,608'
Salt at 2,364' and 2,608'.		2,612'.

## MITCHELL &amp; MITCHELL-L.E. No. 214-4

Lake Erie.

Co-ordinates: 42° 39' 37.8" N., 79° 55' 56.8" W.  
 Elevation: 572' + 28' K.B.  
 Driller: Northern Offshore Drilling Co., Ltd.  
 Completed: May 16, 1963.  
 Result: Gas Producer.  
 Reported Flow: 187 Mcf/d. WHP. 385 psig.

Formation	Top	Thickness
Lake	28	123
Drift	151	128
Bois Blanc	279	103
Bass Island	382	61
Salina	443	340
Top of A2—725		
Guelph-Lockport	783	253
Rochester	1,036	66
Irondequoit	1,102	6
Reynales	1,108	7
Thorold	1,115	4
Grimsby	1,119	51
Cabot Head	1,170	72
Total Depth:		1,242'.

Geologist: W. E. Koepke.

Water	Gas
Sulphur at 320'.	At 1,117' to 1,169'.

## Haldimand County

## MITCHELL &amp; MITCHELL-L. E. No. 212-3

Lake Erie.

Co-ordinates: 42° 37' 26.6" N., 79° 59' 10.7" W.  
 Elevation: 572' + 28' K.B.  
 Driller: Northern Offshore Drilling Co., Ltd.  
 Completed: June 1, 1963.  
 Result: Gas Producer.  
 Reported Flow: 250 Mcf/d. WHP. 558 psig.

Formation	Top	Thickness
Lake	28	135
Drift	163	113
Bois Blanc	276	148
Bass Island	424	86
Salina	510	330
Top of A2—787		
Guelph-Lockport	840	273
Rochester	1,113	62
Irondequoit	1,175	5
Thorold	1,180	6
Grimsby	1,186	51
Cabot Head	1,237	39
Total Depth:		1,276'.

Geologist: W. E. Koepke.

Water	Gas
Sulphur at 420'.	At 1,200' to 1,207', 1,218' to 1,227' and 1,236' to 1,238'.

## MITCHELL &amp; MITCHELL-L. E. No. 218-5

Lake Erie.

Co-ordinates: 42° 38' 27" N., 79° 51' 21" W.  
 Elevation: 572' + 28' K.B.  
 Driller: Northern Offshore Drilling Co., Ltd.  
 Completed: May 27, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Lake	28	135
Drift	163	137
Bois Blanc	300	167
Bass Island	467	72
Salina	539	344
Top of A2—820		
Guelph-Lockport	883	239
Rochester	1,122	60
Irondequoit	1,182	8
Thorold	1,190	6
Grimsby	1,196	29
Cabot Head	1,225	27
Total Depth:		1,252'.

Geologist: W. E. Koepke.

Water	Gas
Sulphur at 360'.	Shows at 1,199' to 1,208' and 1,218' to 1,226'.

## MITCHELL &amp; MITCHELL-L. E. No. 208-12

Lake Erie.

Co-ordinates: 42° 42' 41.8" N., 80° 01' 17.0" W.  
 Elevation: 572' + 28' K.B.  
 Driller: Northern Offshore Drilling Co., Ltd.  
 Completed: August 20, 1963.  
 Result: Gas Producer.  
 Reported Flow: 2,900 Mcf/d. WHP. 584 psig.

Formation	Top	Thickness
Lake.....	28	69
Drift.....	97	33
Bois Blanc.....	130	124
Bass Island.....	254	54
Salina.....	308	321
Top of A2—573		
Guelph-Lockport.....	629	297
Rochester.....	926	52
Irondequoit.....	978	8
Reynales.....	986	8
Thorold.....	994	6
Grimsby.....	1,000	40
Cabot Head.....	1,040	43
Total Depth:.....		1,083'.

Geologist: W. E. Koepke.

Water	Gas
Not recorded.	At 994' to 1,040' and 1,047' to 1,051'.

## PLACE WALPOLE No. 6

Lake Erie.

Co-ordinates: 42° 47' 52" N., 79° 54' 18" W.  
 Elevation: 572' + 15' D.F.  
 Driller: Place Gas and Oil Co., Ltd.  
 Completed: June 24, 1963.  
 Result: Abandoned.  
 Reported Flow: 3 Mcf/d. WHP. N.R. psig.

Formation	Top	Thickness
Lake.....	15	39
Drift.....	54	10
Bois Blanc.....	70	59
Bass Island.....	129	36
Salina.....	165	345
Guelph-Lockport.....	510	252
Rochester.....	762	54
Irondequoit.....	816	4
Reynales.....	820	6
Thorold.....	826	10
Grimsby.....	836	40
Cabot Head.....	876	54
Manitoulin.....	930	15
Whirlpool.....	945	10
Queenston.....	955	13
Total Depth:.....		968'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 70'.	Shows at 839' to 846' and 853' to 860'.
Sulphur at 144'.	

## MITCHELL &amp; MITCHELL-L. E. No. 202-13

Lake Erie.

Co-ordinates: 42° 41' 06.4" N., 80° 00' 43.4" W.  
 Elevation: 572' + 28' K.B.  
 Driller: Northern Offshore Drilling Co., Ltd.  
 Completed: August 27, 1963.  
 Result: Gas Producer.  
 Reported Flow: 1,147 Mcf/d. WHP. 591 psig.

Formation	Top	Thickness
Lake.....	28	93
Drift.....	121	52
Bois Blanc.....	173	115
Bass Island.....	288	60
Salina.....	348	332
Top of A2—624		
Guelph-Lockport.....	680	268
Rochester.....	948	67
Irondequoit.....	1,015	5
Reynales.....	1,020	12
Thorold.....	1,032	4
Grimsby.....	1,036	38
Cabot Head.....	1,074	22
Total Depth:.....		1,096'.

Geologist: W. E. Koepke.

Water	Gas
Not recorded.	At 1,034' to 1,036', 1,042' to 1,045' and 1,046' to 1,080'.

## PLACE WALPOLE No. 19

Lake Erie.

Co-ordinates: 42° 46' 16.4" N., 79° 57' 37.2" W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: September 19, 1963.  
 Result: Gas Producer.  
 Reported Flow: 56 Mcf/d. WHP. 460 psig.

Formation	Top	Thickness
Lake.....	15	42
Drift.....	57	6
Detroit River.....	63	39
Bois Blanc.....	102	62
Bass Island.....	164	46
Salina.....	210	338
Top of A2—490		
Guelph-Lockport.....	548	254
Rochester.....	802	64
Irondequoit.....	866	4
Reynales.....	870	8
Thorold.....	878	10
Grimsby.....	888	34
Cabot Head.....	922	39
Total Depth:.....		961'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 76'.	At 892' to 920'.
Sulphur at 133'.	

## PLACE-WALPOLE No. 29

Lake Erie.

Co-ordinates:  $42^{\circ} 46' 10''$  N.,  $79^{\circ} 59' 06''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: June 25, 1963.  
 Result: Abandoned.  
 Reported Flow: 6.8 Mcf/d. WHP. N.R. psig.

Formation	Top	Thickness
Lake.....	15	41
Drift.....	56	13
Bois Blanc.....	69	118
Bass Island.....	187	41
Salina.....	228	317

Top of A2—485

Guelph-Lockport.....	545	263
Rochester.....	808	57
Irondequoit.....	865	5
Reynales.....	870	8
Thorold.....	878	7
Grimsby.....	885	47
Cabot Head.....	932	53
Manitoulin.....	985	15
Whirlpool.....	1,000	7
Queenston.....	1,007	9
Total Depth:.....		1,016'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 65'.	Shows at 255', 567', 880', and 912' to 920'.
Sulphur at 255'.	

Fresh at 65'.

Shows at 255', 567', 880', and 912' to 920'.

Sulphur at 580'.

## PLACE WALPOLE No. 30

Lake Erie.

Co-ordinates:  $42^{\circ} 46' 40.8''$  N.,  $79^{\circ} 54' 00.1''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: August 3, 1963.  
 Result: Abandoned.  
 Reported Flow: 10 Mcf/d. WHP. N.R. psig.

Formation	Top	Thickness
Lake.....	15	37
Drift.....	52	1
Bois Blanc.....	53	99
Bass Island.....	152	33
Salina.....	185	344

Top of A2—475

Guelph-Lockport.....	529	246
Rochester.....	775	73
Irondequoit.....	848	7
Reynales.....	855	5
Thorold.....	860	10
Grimsby.....	870	40
Cabot Head.....	910	7
Total Depth:.....		917'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 76'.	Shows at 863' to 874' and 903' to 917'.
Sulphur at 208'.	

Fresh at 76'.

Shows at 863' to 874' and 903' to 917'.

Sulphur at 208'.

## PLACE WALPOLE No. 31

Lake Erie.

Co-ordinates:  $47^{\circ} 45' 54''$  N.,  $79^{\circ} 58' 01''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: July 15, 1963.  
 Result: Gas Producer.  
 Reported Flow: 96.6 Mcf/d. WHP. 460 psig.

Formation	Top	Thickness
Lake.....	15	45
Drift.....	60	27
Bois Blanc.....	87	95
Bass Island.....	182	48
Salina.....	230	330

Top of A2—505

Guelph-Lockport.....	560	260
Rochester.....	820	60
Irondequoit.....	880	7
Reynales.....	887	6
Thorold.....	893	7
Grimsby.....	900	40
Cabot Head.....	940	49
Total Depth:.....		989'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 101'.	Show at 880' to 887'.
Sulphur at 580'.	At 919' to 947'.

Water

Gas

Fresh at 101'.

Show at 880' to 887'.

Sulphur at 580'.

At 919' to 947'.

## PLACE WALPOLE No. 30

Lake Erie.

Co-ordinates:  $42^{\circ} 46' 40.8''$  N.,  $79^{\circ} 54' 00.1''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: August 3, 1963.  
 Result: Abandoned.  
 Reported Flow: 10 Mcf/d. WHP. N.R. psig.

Formation	Top	Thickness
Lake.....	15	37
Drift.....	52	1
Bois Blanc.....	53	99
Bass Island.....	152	33
Salina.....	185	344

Top of A2—475

Guelph-Lockport.....	529	246
Rochester.....	775	73
Irondequoit.....	848	7
Reynales.....	855	5
Thorold.....	860	10
Grimsby.....	870	40
Cabot Head.....	910	7
Total Depth:.....		917'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 76'.	Shows at 863' to 874' and 903' to 917'.
Sulphur at 208'.	

Fresh at 76'.

Shows at 863' to 874' and 903' to 917'.

Sulphur at 208'.

## PLACE WALPOLE No. 32

Lake Erie.

Co-ordinates:  $42^{\circ} 46' 20.8''$  N.,  $79^{\circ} 53' 30.8''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: August 21, 1963.  
 Result: Gas Producer.  
 Reported Flow: 284 Mcf/d. WHP. 510 psig.

Formation	Top	Thickness
Lake.....	15	43
Bois Blanc.....	58	94
Bass Island.....	152	40
Salina.....	192	348

Top of A2—476

Guelph-Lockport.....	540	250
Rochester.....	790	65
Irondequoit.....	855	5
Reynales.....	860	5
Thorold.....	865	10
Grimsby.....	875	47
Cabot Head.....	922	20
Total Depth:.....		942'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 72'.	At 899' to 916'.

Water

Gas

Fresh at 72'.

At 899' to 916'.

## PLACE WALPOLE No. 33

Lake Erie.

Co-ordinates:  $42^{\circ} 45' 51''$  N.,  $79^{\circ} 54' 54''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: Place Gas & Oil Co., Ltd.  
 Completed: June 6, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Lake.....	15	37
Drift.....	52	4
Bois Blanc.....	56	131
Bass Island.....	187	51
Salina.....	238	322
Top of A2—500		
Guelph-Lockport.....	500	258
Rochester.....	818	64
Irondequoit.....	882	5
Reynales.....	887	9
Thorold.....	896	9
Grimsby.....	905	39
Cabot Head.....	944	59
Manitoulin.....	1,003	9
Whirlpool.....	1,012	9
Queenston.....	1,021	4
Total Depth.....		1,025'.

Geologist: W. E. Koepke.

Water

Fresh at 74'.  
 Sulphur at 132' and 575'.

## PLACE WALPOLE No. 38

Lake Erie.

Co-ordinates:  $42^{\circ} 46' 08''$  N.,  $79^{\circ} 53' 23''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: I. Smelser.  
 Completed: June 4, 1964.  
 Result: Gas Producer.  
 Reported Flow: 307 Mcf/d. WHP. 480 psig.

Formation	Top	Thickness
Lake.....	15	41
Drift.....	56	4
Bois Blanc.....	60	87
Bass Island.....	147	51
Salina.....	198	335
Top of A2—451		
Guelph-Lockport.....	533	271
Rochester.....	804	55
Irondequoit.....	859	7
Reynales.....	866	10
Thorold.....	876	9
Grimsby.....	885	40
Cabot Head.....	925	23
Total Depth.....		948'.

Geologist: W. E. Koepke.

Water Gas

Fresh at 63'. At 881' to 928'.

## PLACE WALPOLE No. 34

Lake Erie.

Co-ordinates:  $42^{\circ} 46' 42.3''$  N.,  $79^{\circ} 58' 09.6''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: Place Gas & Oil Co., Ltd.  
 Completed: September 24, 1963.  
 Result: Gas Producer.  
 Reported Flow: 96.6 Mcf/d. WHP. 465 psig.

Formation	Top	Thickness
Lake.....	15	25
Drift.....	40	1
Dundee.....	41	39
Bois Blanc.....	80	85
Bass Island.....	165	40
Salina.....	205	335
Top of A2—478		
Guelph-Lockport.....	540	250
Rochester.....	790	58
Irondequoit.....	848	5
Reynales.....	853	7
Thorold.....	860	10
Grimsby.....	870	34
Cabot Head.....	904	25
Total Depth.....		929'.

Geologist: W. E. Koepke.

Water Gas

Fresh at 46'. At 898' to 908'.  
 Sulphur at 57' and 85'.

## PLACE WALPOLE No. 41

Lake Erie.

Co-ordinates:  $42^{\circ} 44' 32.1''$  N.,  $80^{\circ} 03' 46.7''$  W.  
 Elevation: 572' + 15' D.F.  
 Driller: Place Gas & Oil Co., Ltd.  
 Completed: August 16, 1963.  
 Result: Gas Producer.  
 Reported Flow: 185 Mcf/d. WHP. 480 psig.

Formation	Top	Thickness
Lake.....	15	36
Drift.....	51	4
Bois Blanc.....	55	135
Springvale.....	190	20
Bass Island.....	210	54
Salina.....	264	338
Top of A2—542		
Guelph-Lockport.....	602	263
Rochester.....	865	50
Irondequoit.....	915	6
Reynales.....	921	6
Thorold.....	927	4
Grimsby.....	931	40
Cabot Head.....	971	53
Manitoulin.....	1,024	22
Whirlpool.....	1,046	9
Queenston.....	1,055	5
Total Depth.....		1,060'.

Geologist: W. E. Koepke.

Water Gas

Fresh at 62' and 78'. Show at 636'.  
 Sulphur at 636'. At 935' to 965'.







# LOGS OF WELLS FOR 1963

HALTON

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## ERCO No. 3

Sherbrooke tp., lot 5, con. II.

Co-ordinates: 500' N., 570' E.  
Elevation: 585' + 1'.  
Driller: Culver Drilling Co.  
Completed: December 19, 1963.  
Result: Gas Producer.  
Reported Flow: 83 Mcf/d. WHP. 365 psig.

Formation	Top	Thickness
Drift	1	59
Bass Island	60	40
Salina	100	332
Top of A2—378		
Guelph-Lockport	432	218
Rochester	650	62
Irondequoit	712	8
Reynales	720	13
Thorold	733	8
Grimsby	741	39
Cabot Head	780	56
Whirlpool	836	11
Queenston	849	25
Total Depth:	872'	

Geologist: W. E. Koepke.

Water Gas  
Sulphur at 80' and 264'. At 714 to 723', 765' and  
844' to 847'.

## JARVIS HEREFORD FARMS

C. Davidson 46-2

Walpole tp., lot 7, con. VII.

Co-ordinates: 1,895 S., 870' E.  
Elevation:  
Driller: Jarvis Hereford Farms.  
Completed: April 27, 1963.  
Result: Abandoned.  
Reported Flow: 7 Mcf/d. WHP. 290 psig.

Formation	Top	Thickness
Drift	0	23
Bois Blanc	23	77
Bass Island and Salina	100	395
Guelph-Lockport	495	270
Rochester	765	50
Clinton	815	30
Grimsby	845	40
Cabot Head	885	50
Whirlpool	935	10
Queenston	945	5
Total Depth:	950'	

Geologist: Driller's Log.

Water Gas  
Fresh at 55'. Show at 818' to 820'.  
Sulphur at 110'.

## Halton County

### ANTHONY No. 41 - ACTON No. 32

Esquesing tp., lot 16, con. VI.

Co-ordinates: 25' S., 316' E.  
Elevation: 906' + 2'.  
Driller: L. C. McKillop.  
Completed: March 1, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift	2	27
Queenston	29	453
Meaford-Dundas	482	676
Collingwood	1,158	119
Cobourg	1,277	209
Sherman Fall	1,486	84
Kirkfield	1,570	205
Coboconk	1,775	19
Gull River	1,794	104
Shadow Lake	1,898	3
Total Depth	1,901'	

Geologist: W. E. Koepke.

Water Gas  
Fresh at 122'. Show at 1,792' to 1,794'.

### ANTHONY No. 42 - ACTON No. 33

Esquesing tp., lot 16, con. III.

Co-ordinates: 1,120' N., 586' W.  
Elevation: 1,804' + 2'.  
Driller: L. C. McKillop.  
Completed: November 9, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift	2	1
Guelph-Lockport	3	27
Reynales	30	24
Thorold		
Cabot Head	54	32
Manitoulin	86	30
Whirlpool	116	14
Queenston	130	465
Meaford-Dundas and Collingwood	595	829
Cobourg	1,424	210
Sherman Fall	1,634	91
Kirkfield	1,725	202
Gull River	1,927	129
Shadow Lake	2,056	26
Total Depth:	2,082'	

Geologist: W. E. Koepke.

Water Oil  
Fresh at 86'. Show at 1,993' to 1,995'.

### LORN - MAC No. 1 - ACTON No. 1

Esquesing tp., lot 17, con. V.

Co-ordinates: 790' S. of Rd. 545' E. of c/l.  
Elevation: 952' + 2'.  
Driller: L. C. McKillop.  
Completed: July 24, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift	2	25
Queenston	27	458
Meaford-Dundas	485	635
Collingwood	1,120	162
Cobourg	1,282	232
Sherman Fall	1,514	61
Kirkfield	1,575	195
Coboconk	1,770	35
Gull River	1,805	107
Shadow Lake	1,912	23
Total Depth:	1,935'	

Geologist: W. E. Koepke.

Water  
Fresh at 47' and 142'.

## B. P.-TRIAD ET AL STEPHEN 6-XIX

Stephen tp., lot 6, con. XIX.

Co-ordinates: 330' N., 1,625' W.

Elevation: 657' + 2'.

Driller: Demaray and Nichols.

Completed: June 14, 1963.

Result: Abandoned.

Reported Flow: 16 Mcf/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift	2	108
Dundee	110	62
Detroit River	172	348
Bois Blanc	520	216
Bass Island	736	126
Salina	862	592
Top of A2—1,373		
Guelph-Lockport	1,454	498
Rochester	1,952	22
Reynales	1,974	14
Cabot Head	1,988	2
Total Depth:	1,990'	

Geologist: W. E. Koepke.

Water

Gas

Fresh at 126'. At 1,495' to 1,508' and Sulphur at 330'.

Salt at 1781'.

## J. B. BRIEN &amp; ASSOC. No. 2

Stephen tp., lot 13, con. III.

Co-ordinates: 630' N., 1,850' W.

Elevation: 822' + 1'.

Driller: W. Marsh.

Completed: June 7, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift	1	59
Dundee	60	84
Detroit River	144	330
Bois Blanc	474	176
Bass Island	650	112
Salina	762	845
Top of A2—1,322		
Top of A1—1,492		
Guelph-Lockport	1,607	81
Rochester	1,688	20
Reynales	1,708	9
Cabot Head	1,717	46
Manitoulin	1,763	29
Total Depth:	1,792'	

Geologist: W. E. Koepke.

Water Fresh at 60' to 795'. Salt at 1,501 and 1,635'.

## Kent County

## BRADFORD-MAYO 21-1-4

Chatham tp., Gore, lot 21, con. I.

Co-ordinates: 1,750' S., 542' E.

Elevation: 579' + 3'.

Driller: Rawlings Drilling Co., Ltd.

Completed: October 24, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift	3	67
Kettle Point	70	280
Hamilton	350	158
Dundee	508	90
Detroit River	620	258
Bois Blanc	878	232
Bass Island	1,110	107
Salina	1,217	608
Top of A2—1,562		
Top of A1—1,708		
Guelph-Lockport	1,825	137
Rochester	1,962	15
Total Depth:	1,977'	

Geologist: W. E. Koepke.

Water Fresh at 67'. Sulphur at 590'. Salt at 1,595'.

## YORK PRODUCING No. 10

Chatham tp., lot 13, con. XI.

Co-ordinates: 575' N. of c/l, 715' E.

Elevation: 587' + 3'.

Driller: Mandley Drilling Contractors, Ltd.

Completed: July 15, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift	3	51
Kettle Point	54	164
Hamilton	218	190
Dundee	408	79
Columbus	487	43
Detroit River	530	190
Bois Blanc	720	155
Bass Island	875	183
Salina	1,058	576
Top of A2—1,408		
Top of A1—1,544		
Guelph-Lockport	1,634	56
Total Depth:	1,690'	

Geologist: W. E. Koepke.

Water Gas Oil

Fresh at 51'. Show at 51', 1,430' Show at 1,646' to Sulphur at 487' and 1,546'. 1,652' and 950'.

## UNITED REEF No. 10

Howard tp., lot 4, con. VIII.

Co-ordinates: 544' N., 700' E.

Elevation: 647' + 3'.

Driller: Mandley Drilling Contractors, Ltd.

Completed: August 27, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift	3	115
Kettle Point	118	102
Hamilton	220	250
Dundee	470	198
Columbus	668	7
Detroit River	675	119
Bois Blanc	794	96
Bass Island	890	328
Salina	1,218	568
Top of A2—1,650		
Top of A1—1,736		
Guelph-Lockport	1,786	274
Rochester	2,060	29
Dyer Bay	2,089	7
Cabot Head	2,096	129
Manitoulin	2,225	25
Queenston	2,250	373
Meaford-Dundas	2,623	462
Collingwood	3,085	93
Cobourg	3,178	107
Sherman Fall	3,285	127
Kirkfield	3,412	196
Coboconk	3,608	98
Gull River	3,706	342
Shadow Lake	4,048	5
Trempealeau	4,053	44
Total Depth:	4,097'	

Geologist: W. E. Koepke.

Water

Fresh at 95' and 122'.

Sulphur at 635'.

Salt at 1,852' and 4,076'.

ALLEGANY PRODUCING CORP. No. 84-BARTOK No. 1  
Orford tp., lot 4, con. VII.

Co-ordinates: 999 S., 494 W.  
Elevation: 673' ± 4'

Elevation: 673 ± 4  
Driller: H. Meier

Driller: H. Meier  
Completed: February 14, 1963

Completed: February

Formation	Top	Thickness
Drift	4	139
Kettle Point	143	107
Hamilton	250	248
Dundee	498	162
Columbus	660	10
Detroit River	670	165
Bois Blanc	835	244
Bass Island	1,079	143
Salina	1,222	610

Top of A2—1619

Top of A2=1.619

Guelph-Lockport.....	1,832	178
Rochester.....	2,010	33
Reynales.....	2,043	1
Dyer Bay.....	2,044	3
Cabot Head.....	2,047	24
Manitoulin.....	2,171	33
Queenston.....	2,204	370
Meaford-Dundas and Collingwood.....	2,574	547
Trenton.....	3,121	444
Coboconk and Gull River.....	3,565	424
Shadow Lake.....	3,989	5
Cambrian.....	3,994	12
Trempealeau.....	4,006	16
Total Depth:.....		4,022'.
Geologist: W. E. Koepke.		
Water	Gas	
Fresh at 110'.		
Sulphur at 645' and 1,022'.	Show at 4,005' to 4,009'.	
Salt at 1,989' and 4,005'.		

ALLEGANY PRODUCING CORP. No. 86

Orford (p., lot 9, con. X

Co-ordinates: 1,100' S., 400' W.

Elevation: 671' + 5

Driller: H. Meier.

Completed: July 27,

Result: Abandoned.

Formation	Top	Thickness
Drift.....	5	155
Kettle Point.....	160	22
Hamilton.....	182	242
Dundee.....	424	138
Columbus.....	562	21
Detroit River.....	583	155
Bois Blanc.....	738	208
Bass Island.....	946	170
Salina.....	1,116	631
Top of A2—1,615		
Top of A1—1,706		
Guelph-Lockport.....	1,747	253
Rochester.....	2,000	30
Reynales.....	2,030	3
Cabot Head.....	2,033	135
Manitoulin.....	2,168	26
Queenston.....	2,194	376
Meaford-Dundas.....	2,570	415
Collingwood.....	2,985	119
Cobourg.....	3,104	96
Sherman Fall.....	3,200	158
Kirkfield.....	3,358	196
Coboconk.....	3,554	84
Gull River.....	3,638	335
Shadow Lake.....	3,973	3
Trempealeau.....	3,976	20
Eau Claire.....	3,996	26
Arkose.....	4,022	14
Precambrian.....	4,036	5
Total Depth.....	4,041 <sup>1</sup> .	

Geologist: W. E. Koepke

Fresh at 135'.	At 1,774' to	Show at 1,747' to
Sulphur at 573'.	1,779'.	1,749', 3,920' to
Salt at 1,653'.		3,926' and 3,989'
1,747' and		to 3,994'.
3,989'.		

## B.A.-MORAVIAN I.R.-25

Orford tp., lot 25, I.R. No. 47.

Co-ordinates: 385' S., 418' E.

Elevation: 641' + 4'.

Driller: Stubble and Stubble.

Completed: February 26, 1963.

Result: Abandoned.

Reported Flow: 12.77 Mcf/d. 2 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	4	89
Hamilton.....	93	217
Dundee.....	310	146
Columbus.....	456	19
Detroit River.....	475	195
Bois Blanc.....	670	232
Bass Island.....	902	155
Salina.....	1,057	716
Top of A2—1,589		
Top of A1—1,703		
Guelph-Lockport.....	1,773	195
Rochester.....	1,968	32
Reynales.....	2,000	2
Dyer Bay.....	2,002	8
Cabot Head.....	2,010	128
Manitoulin.....	2,138	24
Queenston.....	2,162	374
Meaford-Dundas and Collingwood.....	2,536	508
Cobourg.....	3,044	83
Sherman Fall.....	3,127	179
Kirkfield.....	3,306	194
Cobocoink.....	3,500	100
Gull River.....	3,600	325
Shadow Lake.....	3,925	5
Trempealeau.....	3,930	13
Eau Claire.....	3,943	23
Precambrian.....	3,966	2
Total Depth:.....	3,968'.	

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 9'.	At 3,938' to	Show at 1,776' to
Sulphur at 462'.	3,941'.	1,783' and at
Salt at 1,783' and		3,941' to 3,943'.
3,941'.		

## B.A.-MORAVIAN I.R.-40

Orford tp., lot 40, I.R. No. 47.

Co-ordinates: 714' N., 347' W.

Elevation: 653' + 4'.

Driller: Stubble and Stubble.

Completed: November 1, 1963.

Result: Abandoned.

Reported Flow: 70 Mcf/d. WHP. 1,585 psig.

Formation	Top	Thickness
Drift.....	4	106
Hamilton.....	110	212
Dundee.....	322	154
Columbus.....	476	22
Detroit River.....	498	152
Bois Blanc.....	650	277
Bass Island.....	927	153
Salina.....	1,080	744
Top of A2—1,606		
Top of A1—1,716		
Guelph-Lockport.....	1,824	163
Rochester.....	1,987	25
Dyer Bay.....	2,012	10
Cabot Head.....	2,022	120
Manitoulin.....	2,142	38
Queenston.....	2,180	368
Meaford-Dundas and Collingwood.....	2,548	506
Cobourg.....	3,054	126
Sherman Fall.....	3,180	122
Kirkfield.....	3,302	210
Cobocoink.....	3,512	92
Gull River.....	3,604	326
Shadow Lake.....	3,930	5
Trempealeau.....	3,935	9
Eau Claire.....	3,944	31
Precambrian.....	3,975	3
Total Depth:.....		3,978'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 9'.	At 3,938' to 3,941'.
Sulphur at 476'.	
Salt at 1,968'.	

CENTRAL PIPE LINE-  
S. EARL-DUARD No. 1  
Orford tp., lot 5, con. S.M.R.

Co-ordinates: 670' N., 605' W.  
Elevation: 681' +4'.  
Drillers: S. Earl; Mandley Drilling;  
Central Pipeline Co., Ltd.  
Completed: November 19, 1963.  
Result: Oil Producer.  
Reported Flow: 10 Mcf/d. 25 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	4	183
Kettle Point.....	187	71
Hamilton.....	258	256
Dundee.....	514	146
Columbus.....	660	65
Detroit River.....	725	83
Bois Blanc.....	808	184
Oriskany.....	992	40
Bass Island.....	1,032	230
Salina.....	1,262	460
Top of A2—1,606		
Top of A1—1,687		
Guelph-Lockport.....	1,722	273
Rochester.....	1,995	45
Cabot Head.....	2,040	108
Manitoulin.....	2,148	32
Queenston.....	2,180	384
Meaford-Dundas.....	2,564	476
Collingwood.....	3,040	124
Cobourg.....	3,164	112
Sherman Fall.....	3,276	152
Kirkfield.....	3,428	182
Coboconk.....	3,610	92
Gull River.....	3,702	320
Shadow Lake.....	4,022	5
Cambrian.....	4,027	6
Trempealeau.....	4,033	74
Eau Claire.....	4,107	13
Mount Simon.....	4,120	13
Precambrian.....	4,133	1
Total Depth:.....		4,134'.
P.B. Total Depth:.....		4,080'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 132' and 199'.	Show at 4,031' to 4,034'.	At 4,031' to 4,034'.
Sulphur at 668'.		
Salt at 890', 1,810' and 4,060'.		

## IMPERIAL OIL (No. 827)-MILLS No. 2

Orford tp., lot 54, con. N.T.R.

Co-ordinates: 2,802' N., along W.L.L., 568' E.  
Elevation: 653' + 3'.  
Driller: L. O. Patterson.  
Completed: January 11, 1963.  
Result: Oil Producer.  
Reported Flow: 350 Mcf/d. 150 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	3	167
Hamilton.....	170	167
Dundee.....	337	148
Columbus.....	485	20
Detroit River.....	505	152
Bois Blanc.....	657	249
Bass Island.....	906	233
Salina.....	1,139	453
Top of A2—1,488		
Top of A1—1,573		
Guelph-Lockport.....	1,592	277
Rochester.....	1,869	36
Reynales.....	1,905	5
Dyer Bay.....	1,910	3
Cabot Head.....	1,913	132
Manitoulin.....	2,045	20
Queenston.....	2,065	395
Meaford-Dundas and Collingwood.....	2,460	602
Trenton.....	3,062	448
Coboconk and Gull River.....	3,510	421
Shadow Lake.....	3,931	5
Cambrian.....	3,936	8
Trempealeau.....	3,944	14
Total Depth:.....		3,958'.

Geologist: B. V. Sanford.

Water	Gas	Oil
Fresh at 128'.	At 1,489' to	At 3,952' to 3,958'.
Sulphur at 490'.	1,496' and	
Salt at 839' and	3,950' to 3,952'.	
	1,624'.	

## IMPERIAL OIL (No. 829)-52 N.T.R.

Orford tp., lot 52, con. N.T.R.

Co-ordinates: 1,153' N. along W.L.L., 672' E.  
 Elevation: 648' + 4'.  
 Driller: W. Shaw.  
 Completed: February 1, 1963.  
 Result: Oil Producer.

Reported Flow: 281 Mcf/d. 40 bbl/d WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	4	174
Hamilton.....	178	208
Dundee.....	386	172
Columbus.....	558	12
Detroit River.....	570	153
Bois Blanc.....	723	268
Bass Island.....	991	169
Salina.....	1,160	475
Top of A2—1,517		
Top of A1—1,598		
Guelph-Lockport.....	1,635	264
Rochester.....	1,899	33
Reynales.....	1,932	14
Cabot Head.....	1,946	5
Manitoulin.....	2,051	41
Queenston.....	2,092	386
Meaford-Dundas and Collingwood.....	2,478	584
Trenton.....	3,062	443
Coboconk and Gull River.....	3,505	416
Shadow Lake.....	3,921	5
Cambrian.....	3,926	8
Trempealeau.....	3,934	67
Total Depth:.....		4,001'.
Plugged Back Total Depth:.....		3,950'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 145'.	At 3,930' to	At 3,939' to 3,947',
Sulphur at 550'.	3,947'.	3,950' to 3,954' and 3,954' to
Salt at 974' and 1,686'.		3,959'.

## IMPERIAL OIL (No. 837)-CLEARVILLE No. 7

Orford tp., lot 56, con. N.T.R.

Co-ordinates: 1,139' N. along E.L.L., 398' W.  
 Elevation: 653' + 4'.  
 Driller: L. O. Patterson.  
 Completed: April 4, 1963.  
 Result: Oil Producer.

Reported Flow: 124 Mcf/d. 40 bbl/d. WHP. 530 psig.

Formation	Top	Thickness
Drift.....	4	192
Hamilton.....	196	137
Dundee.....	333	143
Columbus.....	476	69
Detroit River.....	545	85
Bois Blanc.....	630	115
Oriskany.....	745	114
Bass Island.....	859	281
Salina.....	1,140	472
Top of A2—1,501		
Top of A1—1,580		
Guelph-Lockport.....	1,612	270
Rochester.....	1,882	32
Reynales.....	1,914	3
Dyer Bay.....	1,917	3
Cabot Head.....	1,920	124
Manitoulin.....	2,044	26
Queenston.....	2,070	395
Meaford-Dundas.....	2,465	457
Collingwood.....	2,922	143
Cobourg.....	3,065	100
Sherman Fall.....	3,165	125
Kirkfield.....	3,290	222
Coboconk.....	3,512	86
Gull River.....	3,598	337
Shadow Lake.....	3,935	9
Cambrian.....	3,944	8
Trempealeau.....	3,952	10
Total Depth:.....		3,962'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 145'.	Show at 475' to 495'.	At 3,939'
Sulphur at 475'.	At 1,622' and 3,949'	to 3,952'.
Salt at 900' and 1,655'.		

## IMPERIAL OIL No. 841-MCBRIEN No. 3

Orford tp., lot 53, con. N.T.R.

Co-ordinates: 3,841' N. along E.L.L., 691' W.  
 Elevation: 658' + 5'.  
 Driller: W. Shaw.  
 Completed: April 23, 1963.  
 Result: Oil Producer.  
 Reported Flow: 155 Mcf/d. 65 bbl/d. WHP, 550 psig.

Formation	Top	Thickness
Drift.....	5	205
Hamilton.....	210	144
Dundee.....	354	166
Columbus.....	520	15
Detroit River.....	535	127
Bois Blanc.....	662	244
Oriskany.....	906	34
Bass Island.....	940	235
Salina.....	1,175	457
Top of A2—1,515		
Top of A1—1,616		
Guelph-Lockport.....	1,632	275
Rochester.....	1,907	33
Reynales.....	1,940	2
Dyer Bay.....	1,942	5
Cabot Head.....	1,947	121
Manitoulin.....	2,068	32
Queenston.....	2,100	372
Meaford-Dundas.....	2,472	450
Collingwood.....	2,922	148
Cobourg.....	3,070	90
Sherman Fall.....	3,160	160
Kirkfield.....	3,320	195
Coboconk.....	3,515	85
Gull River.....	3,600	334
Shadow Lake.....	3,934	6
Cambrian.....	3,940	8
Trempealeau.....	3,948	46
Total Depth:.....		3,994'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 186'.	At 3,951' to	At 3,963' to 3,966'.
Sulphur at 529'.	3,955' and	
Salt at 903' and	3,963' to 3,966'.	
1,669'.		

## IMPERIAL ENTERPRISES ORFORD 6-A (No. 844)

Orford tp., lot 6, con. A.

Co-ordinates: 1,050' N., 864' E.  
 Elevation: 633' + 4'.  
 Driller: Chevalier and Tremblay.  
 Completed: May 21, 1963.  
 Result: Abandoned.  
 Reported Flow: 6 Mcf/d. 1 bbl/d. WHP, N.R. psig.

Formation	Top	Thickness
Drift.....	4	72
Kettle Point.....	76	17
Hamilton.....	93	237
Dundee.....	330	145
Columbus.....	475	23
Detroit River.....	498	193
Bois Blanc.....	691	239
Bass Island.....	930	142
Salina.....	1,072	703
Top of A2—1,593		
Top of A1—1,710		
Guelph-Lockport.....	1,775	198
Rochester.....	1,973	27
Reynales.....	2,000	3
Grimsby.....	2,003	7
Cabot Head.....	2,010	124
Manitoulin.....	2,134	29
Queenston.....	2,163	381
Meaford-Dundas.....	2,544	372
Collingwood.....	2,916	133
Cobourg.....	3,049	81
Sherman Fall.....	3,130	177
Kirkfield.....	3,307	196
Coboconk.....	3,503	87
Gull River.....	3,590	338
Shadow Lake.....	3,928	6
Cambrian.....	3,934	10
Trempealeau.....	3,944	35
Precambrian.....	3,479	13
Total Depth:.....		3,992'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 64'.	At 3,941' to 3,963'.	At 3,936' to 3,939'.
Sulphur at 776' and 796'.		
Salt at 3,936', 3,960' and 3,980'.		

## IMPERIAL OIL No. 845

Orford tp., lot 55, N.T.R.

Co-ordinates: 2,183' N., 573' W.  
 Elevation: 655' + 4'.  
 Driller: L. O. Patterson.  
 Completed: June 10, 1963.  
 Result: Oil Producer.  
 Reported Flow: 175 Mcf/d. 24 bbl/d. A.F. WHP. 1,000 psig.

Formation	Top	Thickness
Drift.....	4	164
Hamilton.....	168	162
Delaware.....	330	165
Columbus.....	495	43
Detroit River.....	538	87
Bois Blanc.....	625	143
Oriskany.....	768	122
Bass Island.....	890	246
Salina.....	1,136	472

Top of A2—1,492

Top of A1—1,573

Guelph-Lockport.....	1,608	268
Rochester.....	1,876	40
Reynales.....	1,916	3
Cabot Head.....	1,919	117
Manitoulin.....	2,036	34
Queenston.....	2,070	390
Meaford-Dundas.....	2,460	457
Collingwood.....	2,917	147
Cobourg.....	3,064	110
Sherman Fall.....	3,174	134
Kirkfield.....	3,308	200
Coboconk.....	3,508	84
Gull River.....	3,592	342
Shadow Lake.....	3,934	7
Cambrian.....	3,941	4
Trempealeau.....	3,945	55

Total Depth: 4,000'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 125'.	Show at 855'.	At 3,950' to 3,957'.
Sulphur at 490' and 793'.	At 1,621' to 1,627'.	

## IMPERIAL OIL No. 846

Orford tp., lot 54, con. N.T.R.

Co-ordinates: 1,045' N., 113' E.  
 Elevation: 650' + 4'.  
 Driller: W. Shaw.  
 Completed: May 23, 1963.  
 Result: Water Disposal Well.

Formation	Top	Thickness
Drift.....	4	160
Hamilton.....	164	177
Delaware.....	341	164
Columbus.....	505	21
Detroit River.....	526	104
Bois Blanc.....	630	250
Oriskany.....	880	25
Bass Island.....	905	45

Total Depth: 950'.

Geologist: W. E. Koepke.

Water  
 Sulphur at 510' and 895'

## IMPERIAL OIL No. 848-CLEARVILLE No. 10

Orford tp., lot 54, con. N.T.R.

Co-ordinates: 4,484' N. along W.L.L., 566' E.  
 Elevation: 662' + 4'.  
 Driller: W. Shaw.  
 Completed: July 26, 1963.  
 Result: Oil Producer.  
 Reported Flow: 115 bbl/d.

Formation	Top	Thickness
Drift.....	4	211
Hamilton.....	215	123
Dundee.....	338	162
Columbus.....	500	45
Detroit River.....	545	104
Bois Blanc.....	649	113
Oriskany.....	762	150
Bass Island.....	912	258
Salina.....	1,170	462

Top of A2—1,514

Top of A1—1,610

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 160'.	Show at 1,514' to	At 3,954' to 3,960'.
Sulphur at 763'.	1,522'.	

IMPERIAL OIL No. 856-ORFORD 4-55 N.T.R.  
Orford tp., lot 55, con. N.T.R.

Co-ordinates: 3,847' N. along E.L.L., 573' W.  
Elevation: 658' + 4'.  
Driller: W. Shaw.  
Completed: October 6, 1963.  
Result: Oil Producer.  
Reported Flow: 50 bbl/d. A.F. WHP. 725 psig.

Formation	Top	Thickness
Drift.....	4	181
Hamilton.....	185	149
Dundee.....	334	168
Columbus.....	502	38
Detroit River.....	540	86
Bois Blanc.....	626	119
Oriskany.....	745	116
Bass Island.....	861	306
Salina.....	1,167	461
Top of A2—1,512		
Top of A1—1,600		
Guelph-Lockport.....	1,628	264
Rochester.....	1,892	38
Reynales.....	trace	
Cabot Head.....	1,930	110
Manitoulin.....	2,040	42
Queenston.....	2,082	389
Meaford-Dundas.....	2,471	457
Collingwood.....	2,928	142
Cobourg.....	3,070	98
Sherman Fall.....	3,168	148
Kirkfield.....	3,316	198
Coboconk.....	3,514	86
Gull River.....	3,600	336
Shadow Lake.....	3,936	5
Cambrian.....	3,941	7
Trempealeau.....	3,948	44
Total Depth:.....	3,992'	

Geologist: W. E. Koepke.

Water	Oil
Fresh at 170'.	At 3,952' to 3,961' and
Sulphur at 745'.	3,965' to 3,967'.

LYNWOOD SECURITIES No. 1  
Orford tp., lot 60, con. S.T.R.

Co-ordinates: 4,275' S. along E.L.L., 210' W.  
Elevation: 639' + 4'.  
Driller: Mandley Drilling Contractors, Ltd.  
Completed: April 3, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	108
Hamilton.....	112	296
Dundee.....	408	168
Columbus.....	576	42
Detroit River.....	618	92
Bois Blanc.....	710	542
Bass Island.....	910	342
Salina.....	1,252	518
Top of A2—1,655		
Top of A1—1,746		
Guelph-Lockport.....	1,770	255
Rochester.....	2,025	24
Reynales.....	2,049	2
Dyer Bay.....	2,051	11
Cabot Head.....	2,062	113
Manitoulin.....	2,175	43
Queenston.....	2,218	390
Meaford-Dundas.....	2,608	422
Collingwood.....	3,030	179
Cobourg.....	3,209	86
Sherman Fall.....	3,295	153
Kirkfield.....	3,448	202
Coboconk.....	3,650	90
Gull River.....	3,740	324
Shadow Lake.....	4,064	5
Cambrian.....	4,069	13
Trempealeau.....	4,082	48
Total Depth:.....	4,130'	

Geologist: W. E. Koepke.

Water	Oil
Fresh at 137' and 165'.	Show at 4,005' and 4,082'
Salt at 600', 820', 1,128', and 4,086'.	to 4,086'.

## ROTH AND ROTH LTD. No. 24

Orford tp., lot 16, con. IV.

Co-ordinates: 1,207' N., 90' W.  
Elevation: 690' + 1'.  
Driller: S. Earl.  
Completed: November 15, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	433
Total Depth:.....	434'	

Geologist: Driller's Log.

## Water

Fresh at 157'.

## TOBACCO ROAD OIL No. 5

Orford tp., lot 57, S.T.R.

Co-ordinates: 1,357' S. along W. L.L., 784' E.  
 Elevation: 645' + 5'.  
 Driller: Stubble and Stubble.  
 Completed: February 9, 1963.  
 Result: Gas and Oil Producer.  
 Reported Flow: 250 Mcfd. 70 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	5	172
Hamilton.....	177	157
Dundee.....	334	151
Columbus.....	485	50
Detroit River.....	535	85
Bois Blanc.....	620	330
Bass Island.....	950	197
Salina.....	1,147	463
Top of A2—1,498		
Top of A1—1,572		
Guelph-Lockport.....	1,610	267
Rochester.....	1,877	30
Reynales.....	1,907	18
Cabot Head.....	1,925	90
Manitoulin.....	2,015	61
Queenston.....	2,076	386
Meaford-Dundas and Collingwood.....	2,462	601
Trenton.....	3,063	445
Coboconk and Gull River.....	3,508	423
Shadow Lake.....	3,931	4
Trempealeau.....	3,935	22
Total Depth:.....		3,957'.

Geologist: B. V. Sanford and W. E. Koepke.

Water	Gas	Oil
Fresh at 151'.	At 1,598' to 1,615'. At 3,952' to 3,956'.	
Sulphur at 751'.		
Salt at 1,658'.		

## TOBACCO ROAD No. 6

Orford tp., lot 57, con. S.T.R.

Co-ordinates: 2,799' S. along W.L.L., 672' E.  
 Elevation: 643' + 4'.  
 Driller: Stubble and Stubble.  
 Completed: May 24, 1963.  
 Result: Oil Producer.  
 Reported Flow: 6 Mcfd. 40 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	4	146
Hamilton.....	150	210
Dundee.....	360	164
Columbus.....	524	10
Detroit River.....	534	81
Bois Blanc.....	615	243
Oriskany.....	858	87
Bass Island.....	945	255
Salina.....	1,200	419
Top of A2—1,500		
Top of A1—1,593		
Guelph-Lockport.....	1,619	251
Rochester.....	1,870	40
Reynales.....	1,910	2
Dyer Bay.....	1,912	6
Cabot Head.....	1,918	112
Manitoulin.....	2,030	35
Queenston.....	2,065	391
Meaford-Dundas.....	2,456	477
Collingwood.....	2,933	132
Cobourg.....	3,065	95
Sherman Fall.....	3,160	140
Kirkfield.....	3,300	208
Coboconk.....	3,508	86
Gull River.....	3,594	338
Shadow Lake.....	3,932	5
Trempealeau.....	3,937	18
Total Depth:.....		3,955'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Sulphur at 612'.	At 1,670' to 1,695'. At 3,472' to 3,487'	
Salt at 1,840'.	Show at 3,951'. and 3,951' to	
		3,955'.

TOBACCO ROAD No. 7  
Orford tp., lot 52, con. S.T.R.

Co-ordinates: 355' S., 516' E.  
Elevation: 646' + 4'.  
Driller: Stubble and Stubble.  
Completed: October 26, 1963.  
Result: Oil Producer.  
Reported Flow: 43 Mcf/d. 44 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	4	158
Hamilton.....	162	213
Dundee.....	375	165
Columbus.....	540	62
Detroit River.....	602	112
Bois Blanc.....	714	246
Oriskany.....	960	40
Bass Island.....	1,000	150
Salina.....	1,150	465
Top of A2—1,510		
Top of A1—1,588		
Guelph-Lockport.....	1,615	278
Rochester.....	1,893	33
Dyer Bay.....	1,926	2
Cabot Head.....	1,928	122
Manitoulin.....	2,050	20
Queenston.....	2,070	393
Meaford-Dundas.....	2,463	477
Collingwood.....	2,940	126
Cobourg.....	3,066	99
Sherman Fall.....	3,165	147
Kirkfield.....	3,312	198
Coboconk.....	3,510	92
Gull River.....	3,602	330
Shadow Lake.....	3,932	4
Cambrian.....	3,936	16
Trempealeau.....	3,952	10
Total Depth:.....		3,962'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 142'.	At 3,951'.	At 3,951' to 3,962'.
Sulphur at 548'.		
Salt at 1,670' and 1,875'.		

## Lambton County

THEDFORD OIL & GAS No. 1  
Bosanquet tp., lot 22, con. VIII.

Co-ordinates: 400' N., 350' E.  
Elevation: 667' + 1'.  
Driller: H. Brandon.  
Completed: August 15, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	34
Hamilton.....	35	283
Dundee.....	318	100
Detroit River.....	418	370
Bois Blanc.....	788	200
Bass Island.....	988	184
Salina.....	1,172	1,077
Top of A2—1,892		
Top of A1—2,104		
Guelph-Lockport.....	2,249	91
Rochester.....	2,340	56
Irondequoit and Reynales.....	2,396	14
Cabot Head.....	2,410	22
Total Depth:.....		2,432'.

Geologist: W. E. Koepke.

Water  
Fresh at 35'.  
Sulphur at 401'.

## B-A BROOKE 5-XI

Brooke tp., lot 5, con. XI.

Co-ordinates: 400' S., 400' W.  
Elevation: 695' + 4'.  
Driller: H. W. Meier.  
Completed: August 22, 1963.  
Result: Abandoned

Formation	Top	Thickness
Drift.....	4	66
Kettle Point.....	70	65
Hamilton.....	135	268
Dundee.....	403	72
Columbus.....	475	23
Detroit River.....	498	300
Bois Blanc.....	798	172
Bass Island.....	970	132
Salina.....	1,102	646

Top of A2—1,612  
Top of A1—1,693

Guelph-Lockport..... 1,748 18  
Total Depth:..... 1,766'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 45'.	Show at 1,693'	Show at 1,693'
Sulphur at 525'.	to 1,700'.	to 1,700'.
Salt at 1,685'		
	and 1,746'.	

## EARL-TOSTIK SYNDICATE No. 1

Brooke tp., lot 10, con. XIII.

Co-ordinates: 2,183' N., 500' E.  
Elevation: 717' + 2'.  
Driller: S. Earl.  
Completed: August 14, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	56
Kettle Point.....	58	86
Hamilton.....	144	264
Dundee.....	408	110
Detroit River.....	518	262
Bois Blanc.....	780	188
Bass Island.....	968	146
Salina.....	1,114	898

Top of A2—1,740  
Top of A1—1,920

Guelph-Lockport..... 2,012 68  
Total Depth:..... 2,080'.

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 61'.	Show at 2,039	Shows at 2,039
Sulphur at 527'.	to 2,040'.	to 2,049' and 2,052' to 2,074'.

## EARL-TOSTIK SYNDICATE No. 2

Brooke tp., lot 10, con. XIII.

Co-ordinates: 1246' S., 345' E.  
 Elevation: 722' + 1'.  
 Driller: S. Earl.  
 Completed: December 27, 1963.  
 Result: Oil Producer.  
 Reported Flow: 100 Mcf/d. 150 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	1	55
Kettle Point.....	56	89
Hamilton.....	145	265
Dundee.....	410	86
Detroit River.....	496	288
Bois Blanc.....	784	178
Bass Island.....	962	158
Salina.....	1,120	848
Top of A2—1,735		
Top of A1—1,900		
Guelph-Lockport.....	1,968	78
Total Depth:.....	2,046'.	
Geologist: W. E. Koepke.		
Water	Gas	Oil
Fresh at 54'.	At 1,989'	At 1,960' to 1,968',
Sulphur at 510'.	to 1,990'.	1,990' to 2,008', and 2,009' to 2,038'.

## B.A. No. 21-DAWN 31-XII

Dawn tp., lot 31, con. XII.

Co-ordinates: 640' N., 500' W.  
 Elevation: 671' + 4'.  
 Driller: R. L. McPherson.  
 Completed: January 26, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	61
Kettle Point.....	65	55
Hamilton.....	120	245
Dundee.....	365	57
Columbus.....	422	49
Detroit River.....	471	257
Bois Blanc.....	728	157
Bass Island.....	885	140
Salina.....	1,025	876
Top of A2—1,587		
Top of A1—1,763		
Guelph-Lockport.....	1,901	103
Rochester.....	2,004	12
Total Depth:.....	2,016'.	

Geologist: W. E. Koepke.

Water	Gas
Fresh at 60'.	Show at 1,567'.
Sulphur at 530'.	

## ECKFORD AND WHITTY No. 1

Dawn tp., lot 22, con. I.

Co-ordinates: 950' N., 500' W. of c/l.  
 Elevation: 624' + 2'.  
 Driller: E. M. Stevenson.  
 Completed: April 22, 1963.  
 Result: Oil Producer, abandoned.  
 Reported Flow: 50 Mcf/d. 6 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	2	62
Kettle Point.....	64	248
Hamilton.....	312	285
Delaware.....	597	88
Detroit River.....	685	293
Bois Blanc.....	978	112
Bass Island.....	1,090	137
Salina.....	1,227	683
Top of A2—1,620		
Top of A1—1,808		
Guelph-Lockport.....	1,910	39
Total Depth:.....	1,949'.	
Geologist: W. E. Koepke.		
Water	Gas	Oil
Fresh at 60'.	At 1,910 to	At 1,800' to
Sulphur at 710'.	1,935'.	1,816' and 1,935' to 1,942'.

## ECKFORD AND WHITTY No. 2

Dawn tp., lot 22, con. I.

Co-ordinates: 509' N., 763' E.  
 Elevation: 623' + 2'.  
 Driller: M. Stevenson.  
 Completed: June 15, 1963.  
 Result: Gas and Oil Producer.

Reported Flow: 55 Mcf/d. 20 bbl/d. WHP. 730 psig.

Formation	Top	Thickness
Drift.....	2	61
Kettle Point.....	63	269
Hamilton.....	332	286
Delaware.....	618	87
Detroit River.....	705	293
Bois Blanc.....	998	137
Bass Island.....	1,135	133
Salina.....	1,268	655
Top of A2—1,615		
Top of A1—1,808		
Guelph-Lockport.....	1,923	32
Total Depth:.....	1,955'.	
P.B. Total Depth:.....	1,947'.	
Geologist: W. E. Koepke.		
Water	Gas	Oil
Fresh at 63'.	At 1,625' to 1,630'	At 1,933' to
Sulphur at 732'.	and 1,926' to	1,941'.
	1,933'.	

## ECKFORD AND WHITTY No. 3

Dawn tp., lot 22, con. I.

Co-ordinates: 1,500' N., 550' E.  
 Elevation: 623' + 3'.  
 Driller: W. R. Kiser.  
 Completed: August 23, 1963.  
 Result: Gas and Oil Producer.  
 Reported Flow: 42 Mcf/d. 23 bbl/d. WHP. 800 psig.

Formation	Top	Thickness
Drift.....	3	59
Kettle Point.....	62	264
Hamilton.....	326	256
Dundee.....	582	98
Detroit River.....	680	268
Bois Blanc.....	948	126
Bass Island.....	1,074	128
Salina.....	1,202	739
Top of A2—1,630		
Top of A1—1,818		
Guelph-Lockport.....	1,941	16
Total Depth:.....	1,957'.	
Geologist: W. E. Koepke.		
Water	Gas	Oil
Sulphur at 690'.	At 1,953' to 1,957'	At 1,949' to 1,953' and 1,953' to 1,957'.

## ECKFORD AND WHITTY No. 7

Dawn tp., lot 22, con. I.

Co-ordinates: 500' N., 1,700' E.  
 Elevation: 624' + 3'.  
 Driller: Rawlings Drilling Co., Ltd.  
 Completed: December 11, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	62
Kettle Point.....	65	265
Hamilton.....	330	270
Dundee.....	600	80
Detroit River.....	680	303
Bois Blanc.....	983	145
Bass Island.....	1,128	120
Salina.....	1,248	660
Top of A2—1,605		
Top of A1—1,790		
Guelph-Lockport.....	1,908	57
Total Depth:.....	1,965'.	
Geologist: W. E. Koepke.		
Water	Gas	Oil
Fresh at 60'.	Show at 1,910' to	Show at 1,924' to
Sulphur at 645'.	1,924'.	1,938'.
	and 744'.	

## ECKFORD AND WHITTY No. 6

Dawn tp., lot 22, con. I.

Co-ordinates: 1,500' N., 1,650' E.  
 Elevation: 623' + 4'.  
 Driller: Rawlings Drilling Co., Ltd.  
 Completed: November 12, 1963.  
 Result: Gas and Oil Producer.  
 Reported Flow: 40 Mcf/d. 2 bbl/d. WHP. N.R. psig.

Formation	Top	Thickness
Drift.....	4	60
Kettle Point.....	64	266
Hamilton.....	330	260
Dundee.....	590	54
Detroit River.....	644	300
Bois Blanc.....	944	126
Bass Island.....	1,070	142
Salina.....	1,212	706
Top of A2—1,616		
Top of A1—1,812		
Guelph-Lockport.....	1,918	46
Total Depth:.....	1,964'.	
Geologist: W. E. Koepke.		
Water	Gas	Oil
Fresh at 64'.	Show at 1,908' to	At 1,940' to
Sulphur at 697'.	1,912' and	1,955'.
785', and 1,170'.	1,928' to 1,934'.	
	At 1,934' to 1,937'.	

## FILTON REALTY No. I

Dawn tp., lot 27, con. XIV.

Co-ordinates: 250' N. of c/l, 250' E.  
 Elevation:  
 Driller: W. Marsh.  
 Completed: November 26, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	0	53
Kettle Point.....	53	70
Hamilton.....	123	228
Dundee.....	351	102
Detroit River.....	453	225
Bois Blanc.....	678	182
Bass Island.....	860	136
Salina.....	996	839
Top of A2—1,544		
Top of A1—1,694		
Guelph-Lockport.....	1,835	115
Total Depth:.....	1,950'.	
Deepening-Original T.D. 453'—drilled in 1960.		
Geologist: W. E. Koepke.		
Water	Gas	Oil
Fresh at 52'.	Show at 1,725' to	Show at 364' and
Sulphur at 453'.	1,733'.	1,693' to 1,711'.
	and 750'.	
Salt at 1,733'.		
1,841' and		
1,935'.		

IMPERIAL OIL ENTERPRISES DAWN 32-XII (866)  
Dawn tp., lot 32, con. XII.

Co-ordinates: 500' N., 1,650' W.

Elevation: 671' + 4'.

Driller: W. R. Kiser.

Completed: December 23, 1964.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	61
Kettle Point.....	65	63
Hamilton.....	128	250
Dundee.....	378	77
Columbus.....	455	21
Detroit River.....	476	268
Bois Blanc.....	744	171
Bass Island.....	915	127
Salina.....	1,042	866
Top of A2—1,582		
Top of A1—1,770		
Guelph-Lockport.....	1,908	101
Rochester.....	2,009	26
Total Depth:.....	2,035'.	

Geologist: W. E. Koepke.

Water

Fresh at 65'.

Sulphur at 519'.

Salt at 1,955'.

PLACE-DAWN BURNS No. 1  
Dawn tp., lot 16, con. VI.

Co-ordinates: 496' S., 548' E.

Elevation: 627' + 2'.

Driller: I. Smelser.

Completed: February 18, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	50
Kettle Point.....	52	135
Hamilton.....	187	24
Total Depth:.....	211'.	

Geologist: W. E. Koepke.

Water

Fresh at 48'.

PLACE-DAWN BURNS No. 1-A  
Dawn tp., lot 16, con. VI.

Co-ordinates: 548' S., 487' E.

Elevation: 627' + 2'.

Driller: I. Smelser.

Completed: March 25, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	50
Kettle Point.....	52	135
Hamilton.....	187	209
Delaware.....	396	113
Detroit River.....	509	247
Bois Blanc.....	756	136
Bass Island.....	892	130
Salina.....	1,022	834
Top of A2—1,564		
Top of A1—1,728		
Guelph-Lockport.....	1,856	110
Rochester.....	1,966	17
Total Depth:.....	1,983'.	

Geologist: W. E. Koepke.

Water

Fresh at 48' and 236'.

Sulphur at 450' and 932'.

Salt at 1,729'.

SALINA-TAMARCK No. 2  
Dawn tp., lot 30, con. VI.

Co-ordinates: 500' N., 600' E.

Elevation: 655' + 3'.

Driller: Mandley Drilling Contractors, Ltd.

Completed: January 28, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	69
Kettle Point.....	72	40
Hamilton.....	112	250
Dundee.....	362	75
Columbus.....	437	31
Detroit River.....	468	290
Bois Blanc.....	758	131
Bass Island.....	889	153
Salina.....	1,042	883
Top of A2—1,598		
Top of A1—1,790		
Guelph-Lockport.....	1,925	126
Total Depth:.....	2,051'.	

Geologist: W. E. Koepke.

Water

Sulphur at 490'.

SALINA-No. 7  
Dawn tp., lot 21, con. I.

Co-ordinates: 500' N., 650' W.

Elevation: 624' + 3'.

Driller: Rawlings Drilling Co., Ltd.

Completed: July 26, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	64
Kettle Point.....	67	231
Hamilton.....	298	228
Delaware.....	526	102
Columbus.....	628	10
Detroit River.....	638	262
Bois Blanc.....	900	245
Bass Island.....	1,145	131
Salina.....	1,276	654
Top of A2—1,630		
Top of A1—1,785		
Guelph-Lockport.....	1,930	107
Rochester.....	2,037	5
Total Depth:.....	2,042'.	

Geologist: W. E. Koepke.

Water

Gas Show at 1,650'.

Fresh at 140'.

Sulphur at 645'.

BRENNAN-SAROLINE No. 9  
Enniskillen tp., lot 12, con. XII.

Co-ordinates: 1,965' S., 15' E.

Elevation:

Driller: Wellington Newport.

Completed: September 3, 1963.

Result: Oil Producer.

Reported Flow: 2 bbl/d.

Formation	Top	Thickness
Drift.....	1	98
Hamilton.....	99	223
Dundee.....	322	118
Detroit River.....	440	40
Total Depth:.....	480'.	

Geologist: W. E. Koepke.

Water

Oil Show at 130' to 135'.

Fresh at 130'.

At 450'.

B. A.-ENNISKILLEN 28-XIII  
Enniskillen tp., lot 28, con. XIII.

Co-ordinates: 1,730' N., 570' E.

Elevation: 687' + 3'.

Driller: R. L. McPherson.

Completed: September 13, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	66
Kettle Point.....	69	63
Hamilton.....	132	275
Dundee.....	407	108
Detroit River.....	515	285
Bois Blanc.....	800	190
Bass Island.....	990	148
Salina.....	1,138	1,037
Top of A2—1,806		
Top of A1—2,036		
Guelph-Lockport.....	2,175	81
Rochester.....	2,256	14
Total Depth:.....		2,270'.

Geologist: W. E. Koepke.

Water

Fresh at 63'.

Sulphur at 537'.

Salt at 2,250'.

IMPERIAL No. 838  
Enniskillen tp., lot 18, con. II.

Co-ordinates: 2,354' N., 664' E.

Elevation: 659' + 1'.

Driller: L. O. Patterson.

Completed: February 3, 1963.

Result: Core Test. (Well transferred to land-owner.)

Formation	Top	Thickness
Drift.....	1	69
Hamilton.....	70	150
Dundee.....	220	84
Detroit River.....	304	96
Total Depth:.....		400'.

Geologist: Jack V. Hill.

Water

Salt at 245'.

Oil

Show at 245' to 250'.

UNION-ENNISKILLEN 6-V  
Enniskillen tp., lot 6, con. V.

Co-ordinates: 1,300' N. of Rd., 800' E.

Elevation: 649' + 2'.

Driller: E. M. Stevenson.

Completed: August 24, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	163
Kettle Point.....	165	87
Hamilton.....	252	254
Delaware.....	506	99
Columbus.....	605	23
Detroit River.....	628	290
Bois Blanc.....	918	176
Bass Island.....	1,094	152
Salina.....	1,246	875
Top of A2—1,758		
Top of A1—1,982		
Guelph-Lockport.....	2,121	87
Rochester.....	2,208	37
Total Depth:.....		2,245'.

Geologist: W. E. Koepke.

Water

Fresh at 95' and 170'.

Sulphur at 625'.

Salt at 2,160'.

PERUVIAN OILS AND MINERALS No. I  
Euphemia tp., lot 27, con. III.

Co-ordinates: 1,759' S., 718' W.

Elevation: 657' + 1'.

Driller: J. Nemec.

Completed: December 4, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	40
Kettle Point.....	41	32
Hamilton.....	73	233
Dundee.....	306	76
Columbus.....	382	20
Total Depth:.....		402'.

Geologist: W. E. Koepke.

Water

Fresh at 41'.

Oil

Show at 324' to 330'.

Salt at 398'.

PERUVIAN OILS AND MINERALS No. 2  
Euphemia tp., lot 28, con. IV.

Co-ordinates: 380' N., 320' W. of River Rd.

Elevation: 671' + 1'.

Driller: J. Nemec.

Completed: December 23, 1963.

Result: Oil Producer.

Reported Flow: 20 bbl/d.

Formation	Top	Thickness
Drift.....	1	31
Kettle Point.....	32	232
Hamilton.....	264	82
Dundee.....	346	32
Total Depth:.....		378'.

Geologist: W. E. Koepke.

Water

Fresh at 32'.

Oil

At 346' to 350' and

Salt at 375'.

353' to 357'.

B.P. TRIAD-IMP. MOORE 10-IX (4)  
Moore tp., lot 10, con. IX.

Co-ordinates: 1,850' N., 680' W..

Elevation: 652' + 2'.

Driller: H. W. Meier.

Completed: April 1, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	123
Kettle Point.....	125	61
Hamilton.....	186	272
Delaware.....	458	100
Detroit River.....	558	422
Bois Blanc.....	980	115
Bass Island.....	1,095	145
Salina.....	1,240	1,165
Top of A2—2,002		
Top of A1—2,257		
Guelph-Lockport.....	2,405	98
Rochester.....	2,503	10
Total Depth:.....		2,513'.

Geologist: W. E. Koepke.

Water

Sulphur at 550'.

Oil

Show at 2,411' to 2,429'.

## B.P. TRIAD MOORE 24-I (7)

Moore tp., lot 24, con. I.

Co-ordinates: 900' S., 330' E.

Elevation: 609' + 3'.

Driller: Demaray and Nichols.

Completed: September 13, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	147
Port Lambton.....	150	52
Kettle Point.....	202	238
Hamilton.....	440	241
Dundee.....	681	101
Detroit River.....	782	283
Bois Blanc.....	1,065	165
Bass Island.....	1,230	115
Salina.....	1,345	1,032
Top of A2—2,010		
Top of A1—2,240		
Guelph-Lockport.....	2,377	106
Rochester.....	2,483	21
Reynales.....	2,504	3
Total Depth:.....		2,507'.

Geologist: W. E. Koepke.

Water

Sulphur at 495' and 790'.

## B.P. TRIAD MOORE 24-V (8)

Moore tp., lot 24, con. V.

Co-ordinates: 1,600' N., 600' E.

Elevation: 625' + 3'.

Driller: Demaray and Nichols.

Completed: November 8, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	147
Port Lambton.....	150	150
Kettle Point.....	300	172
Hamilton.....	472	256
Dundee.....	728	100
Detroit River.....	828	290
Bois Blanc.....	1,118	172
Bass Island.....	1,290	140
Salina.....	1,430	1,042
Top of A2—2,083		
Top of A1—2,326		
Guelph-Lockport.....	2,472	116
Rochester.....	2,588	14
Total Depth:.....		2,602'.

Geologist: W. E. Koepke.

Water

Sulphur at 830'.

## CANADIAN DELHI-MOORE 25-X (26)

Moore tp., lot 25, con. X.

Co-ordinates: 400' N., 713' E.

Elevation: 637' + 3'.

Driller: Chevalier &amp; Tremblay.

Completed: September 18, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	142
Kettle Point.....	145	179
Hamilton.....	324	271
Dundee.....	595	105
Detroit River.....	700	312
Bois Blanc.....	1,012	188
Bass Island.....	1,200	155
Salina.....	1,355	1,029
Top of A2—2,124		
Total Depth:.....		2,384'.

Geologist: W. E. Koepke.

Water

Sulphur at 670'.

Salt at 2,384'.

## CANADIAN DELHI-MOORE 5-XII (25)

Moore tp., lot 5, con. XII.

Co-ordinates: 1,500' S., 792' E.

Elevation: 745' + 3'.

Driller: Chevalier &amp; Tremblay.

Completed: August 8, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	145
Hamilton.....	148	250
Dundee.....	398	100
Detroit River.....	498	217
Bois Blanc.....	815	160
Bass Island.....	975	195
Salina.....	1,170	1,262
Top of A2—2,025		
Top of A1—2,294		
Guelph-Lockport.....	2,432	84
Rochester.....	2,516	24
Total Depth:.....		2,540'.
Geologist: W. E. Koepke.		
Water		Oil
Fresh at 144'.	Show at 918 to	Show at 499' and
Sulphur at 526'.	922'.	516' to 526'.
Salt at 1,274'.		

## CANADIAN DELHI-MOORE 13-II (28)

Moore tp., lot 13, con. II.

Co-ordinates: 1400' N., 600' E.

Elevation: 619' + 3'.

Driller: Chevalier &amp; Tremblay.

Completed: November 7, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	122
Kettle Point.....	125	200
Hamilton.....	325	245
Dundee.....	570	100
Detroit River.....	670	280
Bois Blanc.....	950	172
Bass Island.....	1,122	128
Salina.....	1,250	996
Top of A2—1,880	Top of A1—2,112	
Guelph-Lockport.....	2,246	104
Reynales.....	2,350	15
Total Depth:.....		2,365'.

Geologist: W. E. Koepke.

Water Fresh at 122'.

Sulphur at 675' and 765'.

## CANADIAN DELHI No. 29 - BRIDGENE No. 1

Moore tp., lot 10, con. IV.

Co-ordinates: 355' S., 364' W.

Elevation: 602' + 3'.

Driller: Chevalier &amp; Tremblay.

Completed: December 23, 1963.

Result: Oil Producer.

Reported Flow: 30 bbl/d. WHP. 700 psig.

Formation	Top	Thickness
Drift.....	3	85
Kettle Point.....	88	80
Hamilton.....	168	276
Dundee.....	444	106
Detroit River.....	550	316
Bois Blanc.....	866	204
Bass Island.....	1,070	144
Salina.....	1,214	1,016
Top of A2—1,865	Top of A1—2,100	
Guelph-Lockport.....	2,230	102
Rochester.....	2,332	3
Total Depth:.....		2,335'.
Discovery Well.		
Geologist: W. E. Koepke.		
Water		Oil
Sulphur at 492'.	Show at 166' to	At 2,096' to 2,098',
840' and 1,124'.	169'.	2,108' to 2,120' and
Salt at 2,273'.		2,230' to 2,248'.

## IMPERIAL SECKERTON No. 3 (358)

Moore tp., lot 20, con. IX

Co-ordinates: 1,800' S., 800' E.  
 Elevation: 650' + 4'.  
 Driller: R. L. McPherson.  
 Completed: September 25, 1963.  
 Result: Gas Producer (Unchanged)—Deepening abandoned.

Previously drilled (1952) to depth of 2,387' from Elevation 650' + 3'.

Formation	Top	Thickness
Salina (1952),	1,325	1,062
<b>DEEPENING</b>		
Salina (continued, 1963),	2,387 + 1	94
Guelph,	2,482	49
Total Depth:	2,531'	
Plugged back Total Depth:..	2,378'	

Geologist: W. E. Koepke.

## IMPERIAL SECKERTON No. 4 (361)

Moore tp., lot 21, con. VIII.

Co-ordinates: 450' S., 891' E.  
 Elevation: 650' + 4'.  
 Driller: Stubble and Stubble, Ltd.  
 Completed: October 2, 1963.  
 Result: Gas Producer. (Unchanged).

Previously drilled (1952) to depth of 2,314' from Elevation 650' + 2'.

Formation	Top	Thickness <sup>S</sup>
Salina (1952),	1,320	994
<b>DEEPENING</b>		
Salina (continued, 1963),	2,314 + 2	117
Guelph,	2,433	47
Total Depth:.....	2,480'	

Geologist: W. E. Koepke.

## IMPERIAL No. 840

Moore tp., lot 3, con. X.

Co-ordinates: 2,485' S., 630' E.  
 Elevation: 650' + 2'.  
 Driller: L. O. Patterson.  
 Completed: February 15, 1963.  
 Result: Core Test, suspended.

Formation	Top	Thickness
Drift.....	2	142
Hamilton.....	144	237
Dundee.....	381	115
Detroit River.....	496	3
Total Depth:.....	499'	

Geologist: J. V. Hill.

## IMPERIAL CORUNNA No. 22 (859)

Moore tp., lot 19, con. X.

Co-ordinates: 150' S., 555' E.  
 Elevation: 645' + 3'.  
 Driller: L. O. Patterson.  
 Completed: December 9, 1963.  
 Result: Gas and Oil Producer.  
 Reported Flow: 226 Mcf/d. 15 bbl/d. WHP. 320 psig.

Formation	Top	Thickness
Drift.....	3	137
Kettle Point.....	140	88
Hamilton.....	228	270
Dundee.....	498	73
Columbus.....	571	39
Detroit River.....	610	324
Bois Blanc.....	934	142
Bass Island.....	1,076	195
Salina.....	1,271	1,056

Top of A2—2,104.

Top of A1—2,299.

Guelph-Lockport.....	2,327	224
Total Depth:.....	2,551'	

Geologist: W. E. Koepke.

Water	Gas	Oil
Fresh at 137'	At 2,274 to 2,279'	At 2,401
Sulphur at 638'	2,282' to 2,297'	to 2,520',
	and 2,310 to 2,401'.	

## RAM-IMPERIAL MOORE 12-7

Moore tp., lot 12, con. VII.

Co-ordinates: 1,650' S., 330' W.

Elevation: 630' + 3'.  
 Driller: Rawlings Drilling Co., Ltd.  
 Completed: June 11, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	128
Kettle Point.....	131	81
Hamilton.....	212	250
Dundee.....	462	95
Detroit River.....	557	362
Bois Blanc.....	919	129
Bass Island.....	1,048	162
Salina.....	1,210	1,112

Top of A2—1,920.

Top of A1—2,180.

Guelph-Lockport.....	2,322	106
Rochester.....	2,428	9
Total Depth:.....	2,437'	

Geologist: W. E. Koepke.

## Water

Fresh at 118' and 130'.  
 Sulphur at 580'.

UNION MOORE 2-II  
Moore tp., lot 2, con. II.

Co-ordinates: 1,650' S., 500' E.

Elevation: 626' + 2'.

Driller: H. W. Meier.

Completed: September 20, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	63
Kettle Point.....	65	58
Hamilton.....	123	267
Dundee.....	390	100
Detroit River.....	490	314
Bois Blanc.....	804	167
Bass Island.....	971	127
Salina.....	1,098	1,005
Top of A2—1,742		
Top of A1—1,960		
Guelph-Lockport.....	2,103	97
Rochester.....	2,200	20
Total Depth:.....		2,220'.

Geologist: W. E. Koepke.  
Water  
Sulphur at 542'.UNION MOORE 4-II  
Moore tp., lot 4, con. II.

Co-ordinates: 1,650' S. of Rd., 500' W. of Rd.

Elevation: 622' + 2'.

Driller: H. W. Meier.

Completed: November 6, 1963.

Result: Abandoned.

Reported Flow: 57 Mcf/d. WHP. 851 psig.

Formation	Top	Thickness
Drift.....	2	66
Kettle Point.....	68	61
Hamilton.....	129	267
Dundee.....	396	110
Detroit River.....	506	294
Bois Blanc.....	800	174
Bass Island.....	974	142
Salina.....	1,116	984
Top of A2—1,740		
Top of A1—1,965		
Guelph-Lockport.....	2,100	108
Rochester.....	2,208	14
Total Depth:.....		2,222'.

Geologist: W. E. Koepke.  
Water      Gas      Oil  
Sulphur at 457'.    At 2,107' to 2,207'. Show at 2,119'.CANADIAN DELHI No. 21  
Plympton tp., lot 1, con. VI.

Co-ordinates: 2,000' S., 410' W.

Elevation: 616' + 3'.

Driller: Chevalier &amp; Tremblay Drilling Co., Ltd.

Completed: February 10, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	104
Kettle Point.....	107	75
Hamilton.....	182	310
Dundee.....	492	106
Detroit River.....	598	354
Bois Blanc.....	952	168
Bass Island.....	1,120	158
Salina.....	1,278	1,327
Top of A2—2,214		
Top of A1—2,484		
Guelph-Lockport.....	2,605	87
Rochester.....	2,692	23
Total Depth:.....		2,715'.

Geologist: W. E. Koepke.  
Water  
Sulphur at 570'.  
Salt at 1,323'.IMPERIAL No. 843  
Plympton tp., lot 6, con. IV.

Co-ordinates: 1600' N., 375' W.

Elevation: 663' + 4'.

Driller: W. R. Kiser.

Completed: April 15, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	141
Kettle Point.....	145	35
Hamilton.....	180	297
Dundee.....	477	108
Detroit River.....	585	342
Bois Blanc.....	927	173
Bass Island.....	1,100	172
Salina.....	1,272	944
Top of A2—2,018		
Top of A1—2,188		
Guelph-Lockport.....	2,216	404
Rochester.....	2,620	24
Total Depth:.....		2,644'.

Geologist: W. E. Koepke.  
Water  
Fresh at 140'.  
Sulphur at 590'.WESTBURNE PLYMPTON 4-II  
Plympton tp., lot 4, con. II.

Co-ordinates: 1,500' N., 650' E.

Elevation: 654' + 3'.

Driller: Demaray and Nichols.

Completed: November 20, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	151
Hamilton.....	154	264
Dundee.....	418	110
Detroit River.....	528	322
Bois Blanc.....	850	180
Bass Island.....	1,030	246
Salina.....	1,276	1,172
Top of A2—2,065		
Top of A1—2,318		
Guelph-Lockport.....	2,448	85
Rochester.....	2,533	19
Total Depth:.....		2,552'.

Geologist: W. E. Koepke.  
Water      Gas      Oil  
Fresh at 161'.    Show at 545'.    Show at 552' to 587'.  
Sulphur at 545'.BP—TRIAD—IMPERIAL SARNIA 8-III  
Sarnia tp., lot 8, con. III.

Co-ordinates: 1,400' S., 600' W.

Elevation: 622' + 3'.

Driller: Demaray &amp; Nichols.

Completed: July 23, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	120
Hamilton.....	123	277
Dundee.....	400	102
Detroit River.....	502	363
Bois Blanc.....	865	175
Bass Island.....	1,040	225
Salina.....	1,265	1,301
Top of A2—2,162		
Top of A1—2,412		
Guelph-Lockport.....	2,566	92
Rochester.....	2,658	19
Total Depth:.....		2,677'.

Geologist: W. E. Koepke.  
Water  
Fresh at 118'.  
Sulphur at 520'.



ECKFORD AND WHITTY No. 4  
Sombra tp., lot 30, con. X.

Co-ordinates: 1,650' N., 500' W.  
Elevation: 622' + 4'.  
Driller: Rawlings Drilling Co., Ltd.  
Completed: August 24, 1963.  
Result: Oil Producer.  
Reported Flow: 20 bbl/d. WHP. 500 psig.

Formation	Top	Thickness
Drift	4	63
Kettle Point	67	285
Hamilton	352	258
Dundee	610	72
Detroit River	682	310
Bois Blanc	992	128
Bass Island	1,120	125
Salina	1,245	700
Top of A2—1,622		
Top of A1—1,808		
Guelph-Lockport	1,945	21
Total Depth:	1,966'	

Geologist: W. E. Koepke.

Water	Oil
Fresh at 60'.	At 1,959' to 1,966'.
Sulphur at 730'.	
Salt at 1,821'.	

ECKFORD AND WHITTY No. 5  
Sombra tp., lot 30, con. X.

Co-ordinates: 550' N., 500' W.  
Elevation: 621' + 3'.  
Driller: Rawlings Drilling Co., Ltd.  
Completed: October 8, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift	3	57
Kettle Point	60	280
Hamilton	340	233
Dundee	573	103
Detroit River	676	292
Bois Blanc	968	174
Bass Island	1,142	123
Salina	1,265	684
Top of A2—1,630		
Top of A1—1,815		
Guelph-Lockport	1,949	39
Total Depth:	1,988'	

Geologist: W. E. Koepke.

Water	Oil
Fresh at 60' and 170'.	Show at 1,953' to 1,959'.
Sulphur at 710'.	

IMPERIAL No. 839  
Sombra tp., lot 8, con. XIV.

Co-ordinates: 1,550' N., 400' W.  
Elevation: 615' + 5'.  
Driller: Chevalier & Tremblay.  
Completed: March 5, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift	5	180
Kettle Point	185	207
Hamilton	392	224
Dundee	616	94
Detroit River	710	285
Bois Blanc	995	150
Bass Island	1,145	114
Salina	1,259	994
Top of A2—1,905		
Top of A1—2,116		
Guelph-Lockport	2,253	107
Rochester	2,360	26
Total Depth:	2,386'	

Geologist: W. E. Koepke.

Water Fresh at 179'. Sulphur at 729'. Salt at 2,276'.

IMPERIAL BECHER No. 75 (849)  
Sombra tp., lot 9, con. V.

Co-ordinates: 2,350' N., 500' E.  
Elevation: 581' + 4'.  
Driller: W. R. Kiser.  
Completed: July 4, 1963.  
Result: Oil Producer.  
Reported Flow: 10 bbl/d.

Formation	Top	Thickness
Drift	4	112
Kettle Point	116	170
Hamilton	286	209
Dundee	495	81
Detroit River	576	286
Bois Blanc	862	124
Bass Island	986	131
Salina	1,117	871
Top of A2—1,672		
Top of A1—1,864		
Guelph-Lockport	1,988	27
Total Depth:	2,015'	

Geologist: W. E. Koepke.  
Water Gas  
Fresh at 114'. At 1,864' to 1,865'.  
Sulphur at 588' and 905'. 1,872' to 1,882' and  
Salt at 2,014'. 1,896' to 1,926'.

IMPERIAL BECHER No. 76 (853)  
Sombra tp., lot 9, con. V.

Co-ordinates: 1000' S., 360' W.  
Elevation: 582' + 4'.  
Driller: W. R. Kiser.  
Completed: August 15, 1963.

Result: Water Injection Well.

Formation	Top	Thickness
Drift	4	129
Kettle Point	133	147
Hamilton	280	212
Dundee	492	94
Detroit River	586	277
Bois Blanc	863	109
Bass Island	972	135
Salina	1,107	828
Top of A2—1,660		
Top of A1—1,858		
Total Depth:	1,935'	

Geologist: W. E. Koepke.

Water Gas Oil  
Sulphur at 586'. At 1,862' to 1,864'. At 1,871' to 1,877'.

IMPERIAL BECHER 9-V-S.W. No. 1 (854)  
Sombra tp., lot 9, con. V.

Co-ordinates: 989' S., 50' E.

Elevation: 584' + 1'.

Driller: Demaray and Nichols.

Completed: July 30, 1963.

Result: Source Well.

Formation	Top	Thickness
Drift	1	131
Kettle Point	132	158
Hamilton	290	204
Dundee	494	96
Detroit River	590	270
Bois Blanc	860	110
Bass Island	970	30
Total Depth:	1,000'	

Geologist: W. E. Koepke.

Water Gas  
Fresh at 132'. Show at 112' and 163'.  
Sulphur at 607'.

IMPERIAL BECHER No. 77 (858)  
Sombra tp., lot 9, con. V.

Co-ordinates: 1,950' N., 360' W.

Elevation: 581' + 4'.

Driller: W. R. Kiser,

Completed: September 24, 1963.

Result: Water Injection.

Formation	Top	Thickness
Drift.....	4	112
Kettle Point.....	116	164
Hamilton.....	280	208
Dundee.....	488	100
Detroit River.....	588	262
Bois Blanc.....	850	119
Bass Island.....	969	134
Salina.....	1,103	839
Top of A2—1,664		
Top of A1—1,857		
Total Depth:.....	1,942'	

Geologist: W. E. Koepke.

Water

Fresh at 116'.

Sulphur at 600'.

Oil

Show at 1,857' to 1,859'.

1,862' to 1,870' and

1,896' to 1,919'.

IMPERIAL BECHER 9-V-S.W. No. 2 (862)  
Sombra tp., lot 9, con. V.

Co-ordinates: 1,489' S., 83' E.

Elevation: 581' + 4'.

Driller: W. R. Kiser.

Completed: November 9, 1963.

Result: Water Source Well.

Formation	Top	Thickness
Drift.....	4	128
Kettle Point.....	132	164
Hamilton.....	296	206
Dundee.....	502	86
Detroit River.....	588	268
Bois Blanc.....	856	128
Bass Island.....	984	16
Total Depth:.....	1,000'	

Geologist:

Water

Salt and sulphur at 620'.

I.O.E.-B.P.-SOMBRA 6-15-XV (865)  
Sombra tp., lot 15, con. XV.

Co-ordinates: 1,620' N., 495' E.

Elevation: 614' + 5'.

Driller: Stubble and Stubble Ltd.

Completed: December 11, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	5	145
Kettle Point.....	150	224
Hamilton.....	374	218
Dundee.....	592	84
Columbus.....	676	16
Detroit River.....	692	268
Bois Blanc.....	960	157
Bass Island.....	1,117	110
Salina.....	1,227	981
Top of A2—1,850		
Top of A1—2,073		
Guelph-Lockport.....	2,208	118
Rochester.....	2,326	16
Total Depth:.....	2,342'	

Geologist: W. E. Koepke.

Water

Fresh at 139'.

Sulphur at 707'.

## HOME—C.D.R. WALPOLE ISLAND No. 1

Walpole Island, lot 317, I.R. No. 46.

Co-ordinates: 250' N., 250' W.

Elevation: 577' + 4'.

Driller: Emery English Drilling Co.

Completed: November 7, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	81
Kettle Point.....	85	5
Hamilton.....	90	235
Dundee.....	325	102
Columbus.....	427	25
Detroit River.....	452	340
Bois Blanc.....	792	188
Bass Island.....	980	312
Salina.....	1,292	578

Top of A2—1,631

Top of A1—1,756

Guelph-Lockport.....	1,870	122
Rochester.....	1,992	26
Dyer Bay.....	2,018	6
Cabot Head.....	2,024	101
Manitoulin.....	2,125	57
Queenston.....	2,182	318
Meaford-Dundas and Collingwood.....	2,500	340
Cobourg.....	2,840	117
Sherman Fall.....	2,957	93
Kirkfield.....	3,050	236
Coboconk.....	3,286	96
Gull River.....	3,382	397
Shadow Lake.....	3,379	4
Precambrian.....	3,783	5
Total Depth:.....	3,788'	

Geologist: W. E. Koepke.

Water

Sulphur at 367'.

## BENGAL DEVELOPMENT No. 1

Warwick tp., lot 2, con. VI S.E.R.

Co-ordinates: 517' N., 500' W.

Elevation: 694' + 3'.

Driller: R. L. McPherson Drilling, Ltd.

Completed: June 20, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	52
Kettle Point.....	55	87
Hamilton.....	142	268
Dundee.....	410	95
Detroit River.....	505	295
Bois Blanc.....	800	195
Bass Island.....	995	195
Salina.....	1,140	1,024
Top of A2—1,792		
Top of A1—2,012		
Guelph-Lockport.....	2,164	87
Rochester.....	2,251	5
Total Depth:.....	2,256'	

Geologist: W. E. Koepke.

Water

Fresh at 55'.

Sulphur at 505'.

Salt at 2,178'.

BENGAL DEVELOPMENT No. 2  
Warwick tp., lot 2, con. VI S.E.R.

Co-ordinates: 955' N., 110' W.  
Elevation: 692' + 4'.  
Driller: R. L. McPherson Drilling, Ltd.  
Completed: August 8, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	46
Kettle Point.....	50	90
Hamilton.....	140	269
Dundee.....	409	103
Detroit River.....	512	278
Bois Blanc.....	790	195
Bass Island.....	985	149
Salina.....	1,134	1,029
Top of A2—1,796		
Top of A1—2,010		
Guelph-Lockport.....	2,163	82
Rochester.....	2,245	4
Total Depth:.....		2,249'.

Geologist: W. E. Koepke.  
Water

Sulphur at 510'.  
Salt at 2,185'.

B. A. WARWICK 10-VI S.E.R. (27)  
Warwick tp., lot 10, con. VI S.E.R.

Co-ordinates: 1,650' N., 500' W.  
Elevation: 713' + 4'.  
Driller: H. W. Meier.  
Completed: October 4, 1963.

Formation	Top	Thickness
Drift.....	4	36
Kettle Point.....	40	83
Hamilton.....	123	265
Dundee.....	388	90
Detroit River.....	478	296
Bois Blanc.....	774	191
Bass Island.....	965	147
Salina.....	1,112	986
Top of A2—1,750		
Top of A1—1,963		
Guelph-Lockport.....	2,098	50
Total Depth:.....		2,148'.

Geologist: W. E. Koepke.  
Water

Fresh at 40'.  
Sulphur at 501'.  
Salt at 2,113' and 2,148'.

ECKFORD AND WESTWOOD No. 1  
Warwick tp., lot 17, con. V S.E.R.

Co-ordinates: 550' S., 470' E.  
Elevation: 755' + 2'.  
Driller: Demaray & Nichols.  
Completed: January 16, 1963.

Formation	Top	Thickness
Drift.....	2	78
Kettle Point.....	80	40
Hamilton.....	120	256
Dundee.....	376	93
Detroit River.....	469	359
Bois Blanc.....	828	148
Bass Island.....	976	155
Salina.....	1,131	948
Top of A2—1,724		
Top of A1—1,927		
Guelph-Lockport.....	2,079	30
Total Depth:.....		2,109'.

Geologist: B. V. Sanford.  
Water

Fresh at 80'.  
Sulphur at 560'.  
Salt at 2,095'.

## WALLIS-AULD No. 1

Warwick tp., lot 12, con. II S.E.R.

Co-ordinates: 787' N., 141' W.  
Elevation:  
Driller: S. Earl.  
Completed: July 10, 1963.

Formation	Top	Thickness
Drift.....	0	45
Kettle Point.....	45	45
Hamilton.....	90	275
Dundee.....	365	110
Detroit River.....	475	291
Bois Blanc.....	766	192
Bass Island.....	958	142
Salina.....	1,100	1,009
Top of A2—1,750		
Top of A1—1,962		
Guelph-Lockport.....	2,109	13
Total Depth:.....		2,122'.

Geologist: W. E. Koepke.  
Water

Fresh at 28'.  
Sulphur at 488'.  
Salt at 2,122'.

S. EARL No. 6  
Warwick tp., lot 24, con. I N.E.R.

Co-ordinates: 750' S., 250' W.  
Elevation:  
Driller: S. Earl.  
Completed: July 2, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	0	105
Kettle Point.....	105	30
Hamilton.....	135	259

Total Depth:.....  
394'.  
Geologist: W. E. Koepke.  
Water  
Fresh at 105'.

## CANADIAN DELHI-EKFRID 5-III S.L.R.

Ekfrid tp., lot 5, range III S.L.R.

Co-ordinates: 1,760' S., 4,440' W.

Elevation: 704' + 3'.

Driller: Chevalier &amp; Tremblay.

Completed: October 30, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	159
Hamilton.....	162	96
Dundee.....	258	76
Columbus.....	334	76
Detroit River.....	410	135
Bois Blanc.....	545	230
Bass Island.....	775	95
Salina.....	870	506
Top of A2—1,205		
Top of A1—1,300		
Guelph-Lockport.....	1,376	204
Rochester.....	1,580	38
Reynales.....	1,618	22
Cabot Head.....	1,640	50
Manitoulin.....	1,690	65
Queenston.....	1,755	445
Meaford-Dundas and Collingwood.....	2,200	530
Cobourg.....	2,730	170
Sherman Fall.....	2,900	114
Kirkfield.....	3,014	206
Coboconk.....	3,220	70
Gull River.....	3,290	288
Shadow Lake.....	3,578	3
Trempealeau.....	3,581	9
Arkose.....	3,590	9
Precambrian.....	3,599	13
Total Depth:.....		3,612'.

Geologist: W. E. Koepke.

Water

Sulphur at 715'.

Salt at 1,401'.

## UNIVERSITY OF WESTERN ONTARIO No. 4

London tp., City of London.

Co-ordinates: 43° 00' 36" N., 81° 16' 18" W.

Elevation: 813' + 2'.

Driller: Canadian Longyear Co.

Completed: October 23, 1963.

Result: Observation Well.

Formation	Top	Thickness
Drift.....	2	104
Dundee.....	106	39
Columbus.....	145	8
Detroit River.....	153	267
Bois Blanc.....	420	171
Bass Island.....	591	112
Salina.....	703	460
Top of A2—1,016		
Top of A1—1,101		
Guelph-Lockport.....	1,163	219
Rochester.....	1,382	50
Reynales.....	1,432	11
Cabot Head.....	1,443	72
Manitoulin.....	1,515	27
Queenston.....	1,542	393
Meaford-Dundas.....	1,935	13
Total Depth:.....		1,938'.

Geologist: W. E. Koepke.

Water

Porous Zones at 170' and 380'.

## IMPERIAL EKFRID 21-IV

Ekfrid tp., lot 21, con. IV.

Co-ordinates: 1,425' N., 695' E.

Elevation: 737' + 2'.

Driller: Demaray &amp; Nichols.

Completed: August 9, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	103
Kettle Point.....	105	17
Hamilton.....	122	273
Dundee.....	395	73
Columbus.....	486	57
Detroit River.....	525	77
Total Depth:.....		602'.

Geologist: W. E. Koepke.

Water

Fresh at 90'.

Sulphur at 480'.

## WHITE AND McCLEAR No. 1

McGillivray tp., lot 13, con. VIII W.

Co-ordinates: 1,800' S., 150' W. of c/1.

Elevation: 637' + 4'.

Driller: Mandley Drilling Contractors, Ltd.

Completed: April 23, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	142
Dundee.....	146	69
Detroit River.....	215	352
Bois Blanc.....	567	177
Bass Island.....	744	144
Salina.....	888	954
Top of A2—1,517		
Top of A1—1,710		
Guelph-Lockport.....	1,842	86
Rochester.....	1,928	18
Total Depth:.....		1,946'.

Geologist: W. E. Koepke.

Water

Fresh at 150'.

Sulphur at 365'.

## ANCHOR-WARDSVILLE No. 25

Mosa tp., lot 13, con. I.

Co-ordinates: 1,900' N., 1,150' W.  
 Elevation: 708' + 1'.  
 Driller: Anchor Petroleum, Ltd.  
 Completed: August 14, 1963.  
 Result: Gas Producer.  
 Reported Flow: 150 Mcf/d. WHP. 405 psig.

Formation	Top	Thickness
Drift.....	1	201
Hamilton.....	202	80
Dundee.....	282	116
Columbus.....	398	37
Detroit River.....	435	145
Bois Blanc.....	580	190
Bass Island.....	770	100
Salina.....	870	688

Top of A2—1,374

Top of A1—1,487

Guelph-Lockport..... 1,558 44  
 Total Depth:..... 1,602'.

Geologist: W. E. Koepke.

Water                    Gas

Fresh at 97' and 202'. At 1,488' to 1,582'.  
 Sulphur at 315', 430' and 503'.  
 Salt at 1,602'.

## ANCHOR-WARDSVILLE No. 26

Mosa tp., lot 13, con. I.

Co-ordinates: 800' N., 500' E.  
 Elevation: 704' + 1'.  
 Driller: Anchor Petroleum, Ltd.  
 Completed: October 3, 1963.  
 Result: Gas Producer.  
 Reported Flow: 346 Mcf/d. WHP. 420 psig.

Formation	Top	Thickness
Drift.....	1	205
Hamilton.....	206	78
Dundee.....	284	114
Columbus.....	398	38
Detroit River.....	436	146
Bois Blanc.....	582	190
Bass Island.....	772	102
Salina.....	874	668

Top of A2—1,378

Top of A1—1,486

Total Depth:..... 1,542'.

Geologist: W. E. Koepke.

Water                    Gas                    Oil

Fresh at 85' At 1,487' to 1,542'. Show at 380'.  
 and 346'.

## Norfolk County

## ROBERTS-SAGADAHOC No. 8

Charlottesville tp., lot 12, con. V.

Co-ordinates: 500' S., 200' E.

Elevation: 733' + 2'.

Driller: D. Irving.

Completed: September 28, 1963.

Result: Gas Producer.

Reported Flow: 100 Mcf/d. WHP. 600 psig.

Formation	Top	Thickness
Drift.....	2	203
Dundee.....	205	41
Bois Blanc.....	246	186
Bass Island.....	432	83
Salina.....	515	373

Top of A2—832

Guelph-Lockport.....	888	215
Rochester.....	1,103	71
Irondequoit.....	1,174	6
Reynales.....	1,180	4
Thorold.....	1,184	31
Grimsby.....	1,215	20

Total Depth:..... 1,235'.

Geologist: W. E. Koepke.

Water                    Gas                    Oil

Sulphur at 216' Show at 216'. Show at 216'.  
 and 480'. At 1,184' to 1,214'.  
 Salt at 902'.

## ROBERTS-SAGADAHOC No. 9

Charlottesville tp., lot 11, con. V.

Co-ordinates: 500' N. of c/l., 1,600' E.

Elevation: 740' + 2'.

Driller: D. Irving.

Completed: November 7, 1963.

Result: Gas Producer.

Reported Flow: 200 Mcf/d. WHP. 620 psig.

Formation	Top	Thickness
Drift.....	2	190
Dundee.....	192	73
Bois Blanc.....	265	193
Bass Island.....	458	77
Salina.....	535	349

Top of A2—824

Guelph-Lockport.....	884	213
Rochester.....	1,097	65
Irondequoit.....	1,162	12
Reynales.....	1,174	2
Thorold.....	1,176	8
Cabot Head.....	1,184	89
Manitoulin.....	1,273	14
Whirlpool.....	1,287	4
Queenston.....	1,291	6

Total Depth:..... 1,297'.

Geologist: W. E. Koepke.

Water                    Gas

Fresh at 198' Show at 1,182' to 1,184'.  
 Sulphur at 250'. At 1,200' to 1,204'.







## OKO-LAKE ERIE No. 54-8

Lake Erie.

Co-ordinates: 42° 34' 23" N., 80° 12' 05" W.  
 Elevation: 572' + 6' D.F.  
 Driller: Culver Drilling Co.  
 Completed: July 10, 1963.  
 Result: Gas Producer.  
 Reported Flow: 360 Mcf/d. WHP. 670 psig.

Formation	Top	Thickness
Lake.....	6	7
Drift.....	13	292
Dundee.....	305	43
Bois Blanc.....	348	150
Bass Island.....	498	97
Salina.....	595	339

Top of A2—878

Guelph-Lockport.....	934	324
Rochester.....	1,258	40
Irondequoit.....	1,298	6
Reynales.....	1,304	6
Thorold.....	1,310	10
Grimsby.....	1,320	29
Cabot Head.....	1,349	22

Total Depth: 1,371'.

Geologist: W. E. Koepke.

Water Gas

Sulphur at 328' At 1,323', 1,343' and 1,360'.

## OKO-LAKE ERIE No. 54-9

Lake Erie.

Co-ordinates: 42° 34' 23.8" N., 80° 13' 15.7" W.  
 Elevation: 572' + 6' D.F.  
 Driller: Culver Drilling Co.  
 Completed: September 6, 1963.  
 Result: Abandoned.  
 Reported Flow: 55 Mcf/d. WHP. 600 psig.

Formation	Top	Thickness
Lake.....	6	10
Drift.....	16	283
Dundee.....	299	61
Bois Blanc.....	360	146
Bass Island.....	506	86
Salina.....	592	324

Top of A2—865

Guelph-Lockport.....	916	346
Rochester.....	1,262	35
Irondequoit.....	1,297	6
Reynales.....	1,303	5
Thorold.....	1,308	8
Grimsby.....	1,316	42
Cabot Head.....	1,358	22

Total Depth: 1,388'.

Geologist: W. E. Koepke.

Water Gas

Salt at 1,320' Show at 1,320'.

## OKO-LAKE ERIE No. 54-10

Lake Erie.

Co-ordinates: 42° 34' 22.6" N., 80° 14' 27.3" W.  
 Elevation: 572' + 6' D.F.  
 Driller: Culver Drilling Co.  
 Completed: September 27, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Lake.....	6	2
Drift.....	8	280
Dundee.....	288	62
Bois Blanc.....	350	142
Bass Island.....	492	92
Salina.....	584	328

Top of A2—865

Guelph-Lockport.....	912	362
Rochester.....	1,274	34
Irondequoit.....	1,308	7
Reynales.....	1,315	4
Thorold.....	1,319	9
Grimsby.....	1,328	32

Total Depth: 1,360'.

Geologist: W. E. Koepke.

Water

Fresh at 293'.

## OKO-LAKE ERIE No. 39-11

Lake Erie.

Co-ordinates: 42° 35' 16" N., 80° 11' 23" W.  
 Elevation: 572' + 5' D.F.  
 Driller: Culver Drilling Co.  
 Completed: July 23, 1963.  
 Result: Gas Producer.  
 Reported Flow: 804 Mcf/d. WHP. 640 psig.

Formation	Top	Thickness
Lake.....	5	2
Drift.....	7	233
Dundee.....	240	80
Bois Blanc.....	320	153
Bass Island.....	473	102
Salina.....	575	343

Top of A2—863

Guelph-Lockport.....	918	312
Rochester.....	1,230	38
Irondequoit.....	1,268	6
Reynales.....	1,274	6
Grimsby.....	1,280	48
Cabot Head.....	1,328	23

Total Depth: 1,351'.

Geologist: W. E. Koepke.

Water

Sulphur at 422'.

Show at 421'.  
 At 1,320', 1,321' and 1,351'.

# LOGS OF WELLS FOR 1963

NORFOLK

90

## OKO-LAKE ERIE No. 39-12 Lake Erie.

Co-ordinates: 42° 35' 15.9" N., 80° 12' 04.3" W.  
Elevation: 572' + 6' D.F. Driller: Culver Drilling Co.  
Completed: August 22, 1963. Result: Gas Producer.  
Reported Flow: 480 Mcf/d. WHP. 640 psig.

Formation	Top	Thickness
Lake.....	6	24
Drift.....	30	251
Dundee.....	281	69
Bois Blanc.....	350	136
Bass Island.....	486	112
Salina.....	598	342
Top of A2—875		
Guelph-Lockport.....	940	294
Rochester.....	1,234	28
Irondequoit.....	1,262	10
Reynales.....	1,272	10
Thorold.....	1,282	10
Grimsby.....	1,292	47
Cabot Head.....	1,339	6
Total Depth:.....		1,345'.

Geologist: W. E. Koepke.  
Water Gas At 1,286', 1,297' to 1,308'  
Sulphur at 285'.

## OKO-LAKE ERIE No. 30-13 Lake Erie.

Co-ordinates: 42° 35' 09.7" N., 80° 09' 46.7" W.  
Elevation: 572' + 6' D.F. Driller: Culver Drilling Co.  
Completed: October 24, 1963. Result: Gas Producer.  
Reported Flow: 122 Mcf/d. WHP. 650 psig.

Formation	Top	Thickness
Lake.....	6	2
Drift.....	8	278
Dundee.....	286	62
Bois Blanc.....	348	126
Bass Island.....	474	102
Salina.....	576	331
Top of A2—850		
Guelph-Lockport.....	907	327
Rochester.....	1,234	32
Irondequoit.....	1,266	4
Reynales.....	1,270	6
Thorold.....	1,276	6
Grimsby.....	1,282	42
Cabot Head.....	1,324	18
Total Depth:.....		1,342'.

Geologist: W. E. Koepke.  
Water Fresh at 295'.

Gas At 1,286' to 1,325'.

## OKO-LAKE ERIE No. 52-14 Lake Erie.

Co-ordinates: 42° 34' 23.1" N., 80° 09' 42.2" W.  
Elevation: 572' + 6' D.F. Driller: Culver Drilling Co.  
Completed: October 21, 1963. Result: Abandoned.

Formation	Top	Thickness
Lake.....	6	4
Drift.....	10	289
Dundee.....	299	49
Bois Blanc.....	348	138
Bass Island.....	486	94
Salina.....	580	340
Top of A2—870		
Guelph-Lockport.....	920	350
Rochester.....	1,270	32
Irondequoit.....	1,302	6
Reynales.....	1,308	8
Thorold.....	1,316	6
Grimsby.....	1,322	52
Cabot Head.....	1,374	7
Total Depth:.....		1,381'.

Geologist: W. E. Koepke.  
Water Fresh at 120'.

Gas Show at 320'.

Mineral at 320'.

## OKO-LAKE ERIE No. 52-15 Lake Erie.

Co-ordinates: 42° 34' 22.7" N., 80° 09' 07.1" W.  
Elevation: 572' + 6' D.F. Driller: Culver Drilling Co.  
Completed: October 2, 1963. Result: Gas Producer.

Reported Flow: 108 Mcf/d. WHP. 560 psig.

Formation	Top	Thickness
Lake.....	6	3
Drift.....	9	290
Dundee.....	299	61
Bois Blanc.....	360	120
Bass Island.....	480	89
Salina.....	569	335
Top of A2—852		
Guelph-Lockport.....	904	361
Rochester.....	1,265	36
Irondequoit.....	1,301	8
Reynales.....	1,309	7
Thorold.....	1,316	3
Grimsby.....	1,319	43
Cabot Head.....	1,362	23
Total Depth:.....		1,385'.

Geologist: W. E. Koepke.  
Water Gas Fresh at 307'.

## CARL ROBERTS No. 1—DOCKER No. 1 Middleton tp., lot 20, con. I. S. T. R.

Co-ordinates: 600' N., 400' W.  
Elevation: 772' + 4'.

Driller: D. Irving.

Completed: January 29, 1963.

Result: Gas Producer.

Reported Flow: 250 Mcf/d. WHP. 560 psig.

Formation	Top	Thickness
Drift.....	4	191
Delaware.....	195	59
Columbus.....	254	21
Detroit River.....	275	98
Bois Blanc.....	373	99
Bass Island.....	472	70
Salina.....	542	337

Top of A2—795

Guelph-Lockport.....	879	270
Rochester.....	1,149	40
Reynales.....	1,189	21
Cabot Head.....	1,210	80
Manitoulin.....	1,290	16
Queenston.....	1,306	600
Meaford-Dundas.....	1,906	566
Collingwood.....	2,472	157
Cobourg.....	2,629	186
Sherman Fall.....	2,815	125
Kirkfield.....	2,940	146
Coboconk.....	3,086	10
Gull River.....	3,096	271
Shadow Lake.....	3,367	8
Eau Claire.....	3,375	118
Mount Simon.....	3,493	19
Total Depth:.....		3,512'.
Plugged back Total Depth:.....		1,230'.

Geologist: W. E. Koepke.

Water Gas Oil

Fresh at 242'. At 1,204' to 1,212'. Show at 3,403' to  
Sulphur at 486'. Show at 3,418' to 3,404'.  
Salt at 3,422'. 3,422'.

## CARL ROBERTS No. 3

Middleton tp., lot 23, con. II S.T.R.

Co-ordinates: 1,850' S. along W.L.L., 120' E.

Elevation: 765' + 4'.

Driller: D. Irving.

Completed: August 1, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	189
Delaware.....	193	75
Columbus.....	268	82
Bois Blanc.....	350	123
Bass Island.....	473	42
Salina.....	515	368
Top of A2—805		
Top of A1—866		
Guelph-Lockport.....	883	252
Rochester.....	1,135	47
Irondequoit.....	1,182	10
Reynales.....	1,192	5
Thorold.....	1,197	9
Cabot Head.....	1,206	72
Manitoulin.....	1,278	18
Queenston.....	1,296	607
Meaford-Dundas.....	1,903	557
Collingwood.....	2,460	170
Cobourg.....	2,630	170
Sherman Fall.....	2,800	128
Kirkfield.....	2,928	167
Coboconk.....	3,095	73
Gull River.....	3,168	206
Shadow Lake.....	3,374	8
Eau Claire.....	3,382	29
Total Depth:.....		3,411'.

Geologist: W. E. Koepke.

Water GasFresh at 195'. Shows at 1,195'.  
Sulphur at 478' and 868'. 1,955 to 1,960'.  
Salt at 3,395 and 3,411'. and 2,420'.

## CANADIAN ESSEX—ROBBINS No. 1

South Walsingham tp., lot 11, con. II.

Co-ordinates: 150' S., 150' E.

Elevation: 662' + 2'.

Driller: Culver Drilling Co.

Completed: November 28, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	325
Delaware.....	327	133
Bois Blanc.....	460	162
Bass Island.....	622	68
Salina.....	690	360
Top of A2—980		
Guelph-Lockport.....	1,050	216
Rochester.....	1,266	72
Irondequoit.....	1,338	4
Reynales.....	1,342	7
Thorold.....	1,349	12
Grimsby.....	1,361	17
Cabot Head.....	1,378	75
Manitoulin.....	1,453	15
Whirlpool.....	1,468	5
Total Depth:.....		1,473'.

Geologist: W. E. Koepke.

Water GasFresh at 335'. Show at 1,362' to 1,385'.  
Sulphur at 1,055'.

## B-F &amp; ASSOCIATES No. 1

Townsend tp., lot 2, con. X.

Co-ordinates: 300' S., along E.L.L., 500' W.

Elevation: 770' + 1'.

Driller: S. Lyons and Son.

Completed: April 18, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	123
Bois Blanc.....	124	50
Bass Island.....	174	51
Salina.....	225	340
Top of A2—517		
Guelph-Lockport.....	565	313
Rochester.....	878	37
Irondequoit.....	915	21
Thorold.....	936	5
Grimsby.....	941	18
Total Depth:.....		959'.

Geologist: W. E. Koepke.

Water GasFresh at 133'. Shows at 921' to 933'.  
Sulphur at 186' and 475'. and 941' to 947'.

## KENT MASON No. 1

Townsend tp., lot 2, con. IX.

Co-ordinates: 2,229' N., 950' W.

Elevation: 757' + 1'.

Driller: S. Lyons and Son.

Completed: June 20, 1963.

Result: Gas Producer.

Reported Flow: 23 Mcf/d. W.H.P. 410 psig.

Formation	Top	Thickness
Drift.....	1	120
Bois Blanc.....	121	36
Bass Island.....	157	51
Salina.....	208	324
Top of A2—480		
Guelph-Lockport.....	532	310
Rochester.....	840	51
Poor samples.....	893	22
Cabot Head.....	915	26
Total Depth:.....		941'.

Geologist: W. E. Koepke.

Water GasFresh at 123'. At 903' to 908'.  
Sulphur at 200'.

## KENT MASON No. 2

Townsend tp., lot 2, con. IX.

Co-ordinates: 800' S. along W.L.L., 555' E.

Elevation: 759' + 1'.

Driller: S. Lyons &amp; Son.

Completed: July 16, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	102
Bois Blanc.....	103	36
Bass Island.....	139	47
Salina.....	186	341
Top of A2—475		
Guelph-Lockport.....	527	322
Rochester.....	849	41
Irondequoit.....	890	5
Reynales.....	895	3
Thorold.....	898	27
Cabot Head.....	925	15
Total Depth:.....		940'.

Geologist: W. E. Koepke.

Water GasFresh at 105'. Show at 904'.  
Sulphur at 154'.

# LOGS OF WELLS FOR 1963

NORFOLK

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## KENT MASON No. 3

Townsend tp., lot 2, con. IX.

Co-ordinates: 1,200' S., 35' W.  
Elevation: 758' + 1'.  
Driller: S. Lyons and Son.  
Completed: October 4, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	1	119
Bois Blanc.....	120	40
Bass Island.....	160	64
Salina.....	224	316
Top of A2—475		
Guelph-Lockport.....	540	310
Rochester.....	850	40
Irondequoit and Reynales.....	890	20
Grimsby.....	910	40
Cabot Head.....	950	32
Manitoulin.....	982	24
Queenston.....	1,006	4
Total Depth:.....	1,010'	

Geologist: W. E. Koepke.

Water

Fresh at 121'.  
Sulphur at 160'.

Gas

Show at 891'.

## B-F & ASSOCIATES No. 2

Windham tp., lot 20, con. XI.

Co-ordinates: 517' N., along W.L.L., 650' E.  
Elevation: 788' + 2'.  
Driller: S. Lyons and Son.  
Completed: July 12, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	151
Dundee.....	153	72
Columbus.....	225	23
Detroit River.....	248	32
Bois Blanc.....	280	95
Bass Island.....	375	59
Salina.....	434	354
Top of A2—725		
Guelph-Lockport.....	788	219
Rochester.....	1,007	58
Irondequoit.....	1,065	10
Reynales.....	1,075	5
Thorold.....	1,080	20
Cabot Head.....	1,100	73
Manitoulin.....	1,173	12
Whirlpool.....	1,185	2
Queenston.....	1,187	5
Total Depth:.....	1,192'	

Geologist: W. E. Koepke.

Water

Fresh at 174'.  
Sulphur at 378'.

## B-F & ASSOCIATES No. 3

Windham tp., lot 19, con. XII.

Co-ordinates: 350' S., 534' E.

Elevation: 789' + 4'.

Driller: D. Irving.

Completed: August 15, 1963.

Result: Gas Producer.

Reported Flow: 483 Mcf/d. W.H.P. 505 psig.

Formation	Top	Thickness
Drift.....	4	174
Delaware.....	178	41
Columbus.....	219	45
Bois Blanc.....	264	102
Bass Island.....	366	44
Salina.....	410	364
Top of A2—705		
Guelph-Lockport.....	774	236
Rochester.....	1,010	48
Irondequoit.....	1,058	7
Reynales.....	1,065	9
Thorold.....	1,074	19
Grimsby.....	1,093	4
Cabot Head.....	1,097	20
Total Depth:.....	1,117'	

Geologist: W. E. Koepke.

Water

Fresh at 189'.  
Sulphur 358'.

Gas

At 1,075' to 1,086'.

## B-F & ASSOCIATES No. 4

Windham tp., lot 19, con. XII.

Co-ordinates: 1,450' S., 500' E.

Elevation: 789' + 3'.

Driller: D. Irving.

Completed: October 23, 1963.

Result: Gas Producer.

Reported Flow: 7 Mcf/d. W.H.P. 360 psig.

Formation	Top	Thickness
Drift.....	3	170
Dundee.....	173	48
Columbus.....	221	31
Bois Blanc.....	252	115
Bass Island.....	367	55
Salina.....	422	334
Top of A2—690		
Guelph-Lockport.....	756	254
Rochester.....	1,010	59
Irondequoit.....	1,069	11
Reynales.....	1,080	7
Thorold.....	1,087	12
Cabot Head.....	1,099	66
Manitoulin.....	1,165	21
Whirlpool.....	1,186	4
Queenston.....	1,190	7
Total Depth:.....	1,197'	

Geologist: W. E. Koepke.

Water

Fresh at 191'.  
Sulphur at 570'.

Gas

At 1,097' to 1,101'.

## B-F &amp; ASSOCIATES No. 5

Windham tp., lot 18, con. XII.

Co-ordinates: 500' S., 500' E.  
 Elevation: 776' + 1'.  
 Driller: Mandley Drilling Contractors, Ltd.  
 Completed: November 15, 1963.  
 Result: Gas Producer.  
 Reported Flow: 775 Mcf/d. WHP. 520 psig.

Formation	Top	Thickness
Drift.....	1	149
Dundee.....	150	35
Columbus.....	185	15
Bois Blanc.....	200	102
Bass Island.....	302	40
Salina.....	342	370
Top of A2—652		
Guelph-Lockport.....	712	276
Rochester.....	988	53
Irondequoit.....	1,041	8
Reynales.....	1,049	5
Thorold.....	1,054	21
Cabot Head.....	1,075	25
Total Depth:.....		1,100'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 155'.	At 1,056' to 1,074'.
Sulphur at 190'.	

## B-F &amp; ASSOCIATES No. 6

Windham tp., lot 19, con. XII.

Co-ordinates: 500' S. along E. L.L., 500' W.  
 Elevation: 780' + 3'.  
 Driller: D. Irving.  
 Completed: November 24, 1963.  
 Result: Gas Producer.  
 Reported Flow: 70 Mcf/d. WHP. 520 psig.

Formation	Top	Thickness
Drift.....	3	153
Dundee.....	156	48
Columbus.....	204	16
Bois Blanc.....	220	116
Bass Island.....	336	60
Salina.....	396	339
Top of A2—677		
Guelph-Lockport.....	735	263
Rochester.....	998	55
Irondequoit.....	1,053	10
Reynales.....	1,063	8
Thorold.....	1,071	12
Grimsby.....	1,083	3
Cabot Head.....	1,086	19
Total Depth:.....		1,105'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 170'.	At 1,069' to 1,079'.
Sulphur at 345'.	

## STOVER No. 1

Windham tp., lot 15, con. IX.

Co-ordinates: 450' N., 550' W.  
 Elevation: 786' + 2'.  
 Driller: S. Lyons & Son.  
 Completed: May 16, 1963.  
 Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	130
Dundee.....	132	25
Columbus.....	157	23
Detroit River.....	180	30
Bois Blanc.....	210	82
Bass Island.....	292	53
Salina.....	345	318
Top of A2—610		
Guelph-Lockport.....	663	294
Rochester.....	957	50
Irondequoit.....	1,007	8
Reynales.....	1,015	5
Thorold.....	1,020	15
Grimsby.....	1,035	4
Cabot Head.....	1,039	11
Total Depth:.....		1,050'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 134' and 170'.	Show at 1,030' to 1,035'.
Sulphur at 290'.	

## STOVER No. 2

Windham tp., lot 9, con. VIII.

Co-ordinates: 2,280' S. along W. L.L., 825' E.  
 Elevation: 780' + 1'.  
 Driller: S. Lyons & Son.  
 Completed: August 28, 1963.  
 Result: Gas Producer.

Reported Flow: 85 Mcf/d. WHP. 420 psig.

Formation	Top	Thickness
Bois Blanc.....	132	76
Bass Island.....	208	44
Salina.....	252	306
Top of A2—508		
Guelph-Lockport.....	558	342
Rochester.....	900	44
Irondequoit.....	944	10
Reynales.....	954	6
Thorold.....	960	8
Grimsby.....	968	4
Cabot Head.....	972	14
Total Depth:.....		986'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 134' and 200'.	At 957' to 966'.

## LLOYD VANDERBURG No. 6

Windham tp., lot 1, con. XIII.

Co-ordinates: 462' N. of c/l, 552' W.  
 Elevation: 717' + 1'.  
 Driller: H. V. Nauman.  
 Completed: February 18, 1963.  
 Result: Source Well. (Unchanged)

Previously drilled (1961) to depth of 3,251' from Elevation 717' + 1'.

Formation	Top	Thickness
DEEPENING		
Cambrian (continued, 1963).....	3,251	135
Precambrian.....	3,386	15
Total Depth:.....		3,401'.

Geologist: W. E. Koepke.

# LOGS OF WELLS FOR 1963

OXFORD

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## WAKEHAM BAY MINES-No. 3

Blandford tp., lot 3, con. V.

Co-ordinates: 2,750' N., 495' W.  
Elevation: 958' + 4'.  
Driller: W. Kiser.  
Completed: January 10, 1963.  
Result: Oil show, suspended.

Formation	Top	Thickness
Drift.....	4	151
Salina.....	155	261
Top of A2—340		
Top of A1—406		
Guelph-Lockport.....	416	366
Rochester.....	782	44
Irondequoit.....	826	10
Reynales.....	836	18
Cabot Head.....	854	46
Manitoulin.....	900	24
Whirlpool.....	924	9
Queenston.....	933	467
Meaford-Dundas and Collingwood.....	1,400	723
Trenton.....	2,123	503
Black River.....	2,626	242
Cambrian.....	2,868	10
Arkose.....	2,878	3
Precambrian.....	2,881	8
Total Depth.....		2,889'.

Geologist: B. V. Sanford and G. Peterson.

Water	Gas	Oil
Fresh at 139'.	Show at 812' to	Show at 2,967' to
Sulphur at 203'.	820'.	2,980'.

## A. D. BARNETT No. 1

Dereham tp., lot 20, con. V.

Co-ordinates: 1,700' S., 500' E.  
Elevation: 903' + 2'.  
Driller: R. McMaster & Sons Co., Ltd.  
Completed: July 1, 1963.  
Result: Oil Producer.  
Reported Flow: 10 bbl/d.

Formation	Top	Thickness
Drift.....	2	158
Delaware.....	160	145
Columbus.....	305	15
Detroit River.....	320	46
Bois Blanc.....	366	95
Bass Island.....	461	54
Salina.....	515	401
Top of A2—825		
Top of A1—891		
Guelph-Lockport.....	916	261
Rochester.....	1,177	48
Irondequoit.....	1,225	10
Reynales.....	1,235	13
Cabot Head.....	1,248	58
Manitoulin.....	1,306	37
Queenston.....	1,343	552
Meaford-Dundas.....	1,895	560
Collingwood.....	2,455	89
Cobourg.....	2,544	196
Sherman Fall.....	2,740	148
Kirkfield.....	2,888	140
Gull River.....	3,028	285
Shadow Lake.....	3,313	7
Eau Claire.....	3,320	19
Precambrian.....	3,339	5
Total Depth.....		3,344'.

Geologist: W. E. Koepke.

Water	Oil
Fresh at 90'.	At 3,330' to 3,339'.
Sulphur at 186'.	

## McMASTER No. 22-GOBLES 18

Blenheim tp., lot 20, con. I.

Co-ordinates: 605' N., 500' E.  
Elevation: 932' G.E.  
Driller: R. McMaster & Sons Co., Ltd.  
Completed: February 1, 1963.  
Result: Oil Producer.

Reported Flow: 40 bbl/d.

Formation	Top	Thickness
Drift.....	0	115
Salina.....	115	324
Top of A2—385		
Top of A1—429		
Guelph-Lockport.....	439	333
Rochester.....	772	46
Reynales.....	818	10
Thorold.....	828	12
Cabot Head.....	840	52
Manitoulin.....	892	26
Whirlpool.....	918	8
Queenston.....	926	471
Meaford-Dundas and Collingwood.....	1,397	749
Trenton.....	2,146	500
Black River.....	2,646	246
Eau Claire.....	2,892	25
Precambrian.....	2,917	1
Total Depth.....		2,918'.

Geologist: B. V. Sanford.

Water	Oil
Fresh at 140', 185' and 228'.	At 2,899' to 2,915'.

## IMPERIAL No. 842

North Norwich tp., lot 4, con. II.

Co-ordinates: 1,540' S., 594' W.  
Elevation: 862' + 4'.  
Driller: Stubble and Stubble.  
Completed: April 16, 1963.  
Result: Abandoned.

Formation	Top	Thickness
Drift.....	4	59
Bois Blanc.....	63	68
Bass Island.....	131	37
Salina.....	168	343
Top of A2—447		
Guelph-Lockport.....	511	379
Rochester.....	890	43
Reynales.....	933	17
Cabot Head.....	950	55
Manitoulin.....	1,005	35
Whirlpool.....	1,040	2
Queenston.....	1,042	494
Meaford-Dundas.....	1,536	640
Collingwood.....	2,176	134
Cobourg.....	2,310	185
Sherman Fall.....	2,495	139
Kirkfield.....	2,634	148
Gull River.....	2,782	263
Shadow Lake.....	3,045	4
Eau Claire.....	3,049	20
Precambrian.....	3,069	2
Total Depth.....		3,071'.

Geologist: W. E. Koepke.

Water	Gas
Fresh at 55' and 90'.	Show at 2,522' to 2,530'.
Salt at 3,060'.	

CANADIAN DELHI-BLANSHARD 5-XV  
Blanshard tp., lot 5, con. XV.

Co-ordinates: 330' N., 330' W. of River Road.

Elevation: 1,032' + 3'.

Driller: Chevalier &amp; Tremblay.

Completed: March 16, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	3	39
Dundee.....	42	40
Detroit River.....	82	310
Bois Blanc.....	392	138
Bass Island.....	530	100
Salina.....	630	407
Top of A2—952		
Top of A1—1,018		
Guelph-Lockport.....	1,037	115
Total Depth:.....		1,152'.

Geologist: W. E. Koepke.

Water

Fresh at 37'.

Salt at 1,050' and 1,145'.

## Welland County

LINCOLN-WAINFLEET No. 8  
Wainfleet tp., lot 31, con. III.

Co-ordinates: 2,950' S., 200' E.

Elevation: 580' + 1'.

Driller: Culver Drilling, Ltd.

Completed: March 9, 1963.

Result: Gas Producer.

Reported Flow: 10 Mcf/d. WHP. 250 psig.

Formation	Top	Thickness
Drift.....	1	113
Salina.....	114	226
Top of A2—263		
Guelph-Lockport.....	340	202
Rochester.....	542	48
Irondequoit.....	590	8
Reynales.....	598	34
Grimsby.....	632	32
Cabot Head.....	664	42
Whirlpool.....	706	24
Queenston.....	730	30
Total Depth:.....		760'.

Geologist: W. E. Koepke.

Water

Fresh at 114'.

## Gas

At 627' to 642' and  
726' to 728'.WELLANDPORT GAS-No. 12  
Wainfleet tp., lot 43, con. VI.

Co-ordinates: 2,112' S. of Rd., 183' E. of Rd.

Elevation: 588' + 1'.

Driller: P. L. Jackson Co.

Completed: June 29, 1963.

Result: Gas Producer.

Reported Flow: 33 Mcf/d. WHP. 220 psig.

Formation	Top	Thickness
Drift.....	18	83
Salina.....	84	108
Top of A2—152		
Guelph-Lockport.....	192	198
Rochester.....	390	49
Irondequoit.....	439	5
Reynales.....	444	16
Thorold.....	460	20
Grimsby.....	480	28
Cabot Head.....	508	52
Whirlpool.....	560	16
Queenston.....	576	42
Total Depth:.....		618'.

Geologist: W. E. Koepke.

Water

Fresh at 100' and 165'.

## Gas

At 571' to 576'.

Sulphur at 280'.

WELLANDPORT GAS-No. 13  
Wainfleet tp., lot 45, con. VI.

Co-ordinates: 720' N. of Rd., 350' W.

Elevation: 587' + 1'. Driller: P. L. Jackson Co.

Completed: July 18, 1963. Result: Gas Producer.

Reported Flow: 10 Mcf/d. WHP. 140 psig.

Formation	Top	Thickness
Drift.....	1	93
Salina.....	94	124
Top of A2—180		
Guelph-Lockport.....	218	202
Rochester.....	420	43
Irondequoit.....	463	5
Reynales.....	468	14
Thorold.....	482	18
Grimsby.....	500	22
Cabot Head.....	522	60
Whirlpool.....	582	19
Queenston.....	601	45
Total Depth:.....		646'.

Geologist: W. E. Koepke.

Water

Fresh at 94' and 97'. At 467' to 470' and

Sulphur at 286'. 592' to 595'.

WELLANDPORT GAS-No. 14  
Wainfleet tp., lot 41, con. VI.

Co-ordinates: 1,200' S., 700' E.

Elevation: 586' + 1'. Driller: Montgomery Bros.

Completed: August 7, 1963.

Result: Gas Producer.

Reported Flow: 31 Mcf/d. WHP. 220 psig.

Formation	Top	Thickness
Drift.....	1	115
Salina.....	116	82
Top of A2—156		
Guelph-Lockport.....	198	205
Rochester.....	403	49
Irondequoit.....	452	10
Reynales.....	462	10
Thorold.....	472	12
Grimsby.....	484	20
Cabot Head.....	504	62
Whirlpool.....	566	14
Queenston.....	580	50
Total Depth:.....		630'.

Geologist: W. E. Koepke.

Water

Fresh at 96'. At 469' to 479' and

Sulphur at 158' and 236'. 572' to 585'.

WELLANDPORT GAS-No. 15  
Wainfleet tp., lot 39, con. VII.

Co-ordinates: 500' N., 300' E.

Elevation: 585' + 1'. Driller: P. L. Jackson Co.

Completed: August 29, 1963.

Result: Gas Producer.

Reported Flow: 21 Mcf/d. WHP. 190 psig.

Formation	Top	Thickness
Drift.....	1	85
Salina.....	86	107
Top of A2—156		
Guelph-Lockport.....	193	193
Rochester.....	386	54
Irondequoit.....	440	8
Reynales.....	448	12
Thorold.....	460	10
Grimsby.....	470	32
Cabot Head.....	502	58
Whirlpool.....	560	18
Queenston.....	578	49
Total Depth:.....		627'.

Geologist: W. E. Koepke.

Water

Fresh at 85'. At 443' to 445'.

Sulphur at 171' and 240'. 567' to 570' and

574' to 576'.

## WELLANDPORT GAS No. 16

Wainfleet tp., lot 41, con. VII.

Co-ordinates: 160° N., 160° E.

Elevation: 587' + 1'.

Driller: Montgomery Bros.

Completed: September 21, 1963.

Result: Gas Producer.

Reported Flow: 176 Mcf/d. WHP. 240 psig.

Formation	Top	Thickness
Drift.....	1	101
Salina.....	102	83
Top of A2—142		
Guelph-Lockport.....	185	209
Rochester.....	394	46
Irondequoit.....	440	14
Reynales.....	454	10
Thorold.....	464	10
Grimsby.....	474	28
Cabot Head.....	502	58
Manitoulin.....	Trace	
Whirlpool.....	560	10
Queenston.....	570	55
Total Depth:.....	625'.	
Geologist: W. E. Koepke.		
Water	Gas	
Fresh at 112'.	At 478' to 532' and	
Sulphur 168'.	567' to 575'.	

## Wentworth County

## O'KONTA OIL-No. 4

Beverly tp., lot 30, con. IV.

Co-ordinates: 330° S., 1,120° W.

Elevation: 826' + 2'.

Driller: P. L. Jackson Co.

Completed: January 2, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	2	4
Guelph-Lockport.....	6	239
Cabot Head.....	245	45
Manitoulin.....	290	30
Whirlpool.....	320	7
Queenston.....	327	511
Meaford-Dundas.....	838	667
Collingwood.....	1,505	167
Cobourg.....	1,672	173
Sherman Fall.....	1,845	157
Kirkfield.....	2,002	163
Coboconk.....	2,165	25
Gull River.....	2,190	150
Shadow Lake.....	2,340	7
Precambrian.....	2,347	63
Total Depth:.....	2,410'.	

Geologist: W. E. Koepke.

## Water Oil

Fresh at 31'.

Sulphur at 205'.

Salt at 322'.

## CAMPUS GAS SYNDICATE No. 4

Willoughby tp., lot 12, con. IV.

Co-ordinates: 900° S., 450° E.

Elevation:

Driller: K. F. Held &amp; Son.

Completed: June 1, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	0	68
Salina.....	68	62
Guelph-Lockport.....	130	220
Rochester.....	350	65
Irondequoit and Reynales.....	415	38
Grimsby.....	453	40
Cabot Head.....	493	46
Whirlpool	539	23
Queenston.....	562	13
Total Depth:.....	575'.	

Geologist: Driller's log.

Water

Fresh at 120'.

Sulphur at 160'.

## IMPERIAL OIL No. (834)

West Flamborough tp., lot 1, con. III.

Co-ordinates: 345° S., 325° W.

Elevation: 820' + 5'.

Driller: W. Kiser.

Completed: January 26, 1963.

Result: Abandoned.

Formation	Top	Thickness
Drift.....	5	7
Guelph-Lockport.....	12	212
Cabot Head.....	224	44
Manitoulin.....	268	34
Whirlpool.....	302	7
Queenston.....	309	569
Meaford-Dundas.....	878	632
Collingwood.....	1,510	194
Cobourg.....	1,704	190
Sherman Fall.....	1,894	152
Kirkfield.....	2,046	139
Gull River.....	2,185	179
Shadow Lake.....	2,364	5
Eau Claire.....	2,369	18
Total Depth:.....	2,387'.	

Geologist: W. E. Koepke.

Water

Fresh at 28' and 45'.

Sulphur at 215', 910' and 1,265'.

Salt at 2,375'.







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TERMINAL STREAM: 24. 500 R F

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